

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**SPECIFICATIONS AND BID DOCUMENTS FOR THE
PREFABRICATED METAL RELAY CONTROL HOUSE FOR
GREENVILLE SOUTH 230KV POD NO. 3**

ISSUED FOR BIDS



**Booth & Associates, LLC
Consulting Engineers
5811 Glenwood Avenue, Suite 109
Raleigh, North Carolina 27612
Firm License No. F-0221**

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4/26/16

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GREENVILLE, NORTH CAROLINA
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NOTICE TO PROSPECTIVE BIDDERS

Sealed Proposals for the furnishing and delivery of all materials and equipment (except materials and equipment specified to be furnished by the Owner) complete and conforming to the bid documents for prefabricated metal relay control house for Greenville South 230kV POD No. 3, as set forth in the Bid Schedules, will be received by Greenville Utilities Commission of Greenville, North Carolina (hereinafter referred to as the Owner) at the offices of the Buyer II, Greenville Utilities commission, 401 S. Greene Street, Greenville, North Carolina 27834, on or before **2:00 PM, local time, Wednesday, May 11, 2016**, at which time the Proposals will be opened and read. Any Proposal received subsequent to that time will be promptly returned to the Bidder unopened. Bids submitted in a fax or e-mail in response to this Invitation for Bids will not be acceptable. **All questions concerning this bid must be received by Wednesday, May 4, 2016.**

Instructions for submitting bids and complete specifications will be available in the Office of the Buyer II, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina during regular office hours, which are 8:30 AM – 5:00 PM Monday through Friday. Greenville Utilities Commission reserves the right to reject any or all bids.

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.**

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 BUYER II, GREENVILLE UTILITIES COMMISSION, 401 S. GREENE STREET, GREENVILLE, NORTH CAROLINA 27834.

Bids will be opened promptly and read at the hour and on the date set forth in the advertisement in the Office of the Buyer II, Greenville Utilities Main Office, 401 S. Greene Street, Greenville, North Carolina 27834. Bidders or their authorized agents are invited to be present.

Prior to the submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the bid documents on file with the Owner and with the Engineer and of all other matters that may affect the cost and the time of the work.

The name and address of the Bidder, its license number (if a license is required by the State), and the following description must appear on the envelope in with the Proposal is submitted **"BID FOR THE PREFABRICATED METAL RELAY CONTROL HOUSE FOR GREENVILLE SOUTH 230KV POD NO. 3 NOT TO BE OPENED UNTIL 2:00 PM, WEDNESDAY, MAY 11, 2016"**.

Each Proposal shall be accompanied by cash, cashier's check, or certified check drawn on a bank insured with the Federal Deposit Insurance Corporation or the Savings Association Insurance Fund, payable to the Owner, in an amount not less than five percent (5%) of the total bid as a guarantee that a Purchase Order, if awarded, will be accepted. In lieu thereof, a Bid Bond may be submitted by the Bidder in an amount not less than five percent (5%) of the total bid (see attached Bid Bond form). The total bid price for which the five percent (5%) applies shall be the total of all schedules.

The Owner reserves the rights to (1) waive minor irregularities or minor errors in any Proposal if it appears to the Owner that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal prior to its acceptance by the Owner; (2) reject any or all Proposals and to hold any or all Proposals for a period of sixty (60) days from the date of opening thereof; (3) accept the bid, in its opinion, that represents the lowest responsible, responsive bid from the standpoint of quality, performance, delivery and price; and (4) award Purchase Order(s) to Bidder(s) for any Schedule(s) individually or collectively from the Bid Schedules.

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

By: Anthony C. Cannon Date: _____
General Manager / CEO

DEFINITIONS

Whenever the following terms or pronoun in place of them are used in these "Instructions to Bidders", "Form of Proposal", "Technical Specifications", "Contract", bond, etc., the intent and meaning shall be interpreted as follows:

| | |
|-----------------------------------|---|
| Owner | Greenville Utilities Commission Greenville, North Carolina |
| General Manager / CEO | Anthony C. Cannon |
| Consulting Engineer | Booth & Associates, LLC |
| Observer | An authorized representative of the Owner assigned to make any or all necessary observations of work performed and equipment and/or apparatus furnished by the Bidder |
| Bidder | Any individual, firm, or corporation submitting a Proposal for the work contemplated, acting directly or through a duly authorized representative; or party of the second part of the Contract, acting directly or through a duly authorized representative |
| Subcontractor | An individual, firm, or corporation who contracts with the Bidder to perform part of the latter's Contract |
| Surety | The body, corporate or individual, approved by the Owner, which is bound with and for the Bidder who is primarily liable and which engages to be responsible for his acceptable performance of the work for which he has contracted |
| Form of Proposal, Proposal | The approved, prepared form on which the Bidder is to submit or has submitted his Proposal for the work contemplated |
| Bid Security | To all bids there shall be attached cash, cashier's check, or certified check from the Bidder upon a bank or trust company insured by the Federal Deposit Insurance Corporation or the Savings Associates Insurance Fund, or in lieu thereof, a Bid Bond |
| Plans, Drawings | All Drawings or reproductions of Drawings pertaining to the construction under the Contract |
| Technical Specifications | The directions, provisions, and requirements contained herein pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the Contract |
| Purchase Order | The agreement covering the furnishing of equipment and/or apparatus and the performance of the work. The Purchase Order shall include the "Instructions to Bidders", "General Conditions", "Form of Proposal", "Plans", "Technical Specifications", and Acknowledgments |

| | |
|--|---|
| Contract | The agreement covering the furnishing of equipment and/or apparatus and the performance of the work. The Contract shall include the "Instructions to Bidders", "General Conditions", "Form of Proposal", "Plans", "Technical Specifications", and Acknowledgments |
| Performance Bond (Not Required) | The approved form of security to be approved by the Owner furnished by the Bidder and his Surety as a guarantee of good faith on the part of the Bidder to accept the work in accordance with the terms of the Specifications and Contract |
| Payment Bond (Not Required) | The approved form of security to be approved by the Owner furnished by the Bidder and his Surety as a guarantee for payment of all Subcontractors on the part of the Bidder in acceptance of the work in accordance with the terms of the Specifications and Contract |
| Work | The performance of the project covered by the Specifications or the furnishing of labor, machinery, equipment, tools, or any other article or item being purchased by the Owner |
| Emergency | A temporary unforeseen occurrence or combination of circumstances which endangers life and property and calls for immediate action or remedy |
| Work at Site of Project | Work to be performed, including work normally done on the location of the project |
| Bid Documents | Include all sections of the Request for Bids, Form of Proposal, Technical Specifications and Appendices, Addendum/Clarifications/Bulletins, and Drawings |

The subheadings in these Specifications are intended for convenience or reference only and shall not be considered as having any bearing on the interpretations thereof.

INSTRUCTIONS TO BIDDERS

1.0 Bidder Qualification

- 1.1 Bids will be accepted only from Bidders deemed by the Owner or the Engineer to be qualified to provide the materials, equipment, and services described by these Specifications. The experience of Bidders in providing the same or similar materials, equipment, and services will be a major factor in determining qualification. The Bidder shall include information to establish qualifications.
- 1.2 Prospective Bidders who wish to submit a bid, but are not presently qualified, may receive consideration by submitting a completed Bidder's Qualification Form, which requires product line and user list, to the Engineer at least ten (10) days prior to the specified bid opening date and time. The Bidder's Qualification Form may be obtained from the Engineer.

2.0 Proposals

- 2.1 To warrant consideration, Proposals must comply with these instructions. Strict adherence to these specifications and drawings is requested to facilitate review and consideration of the proposal.
- 2.2 Bids not received on Booth & Associates, LLC *Form of Proposal* contained herein will be considered unresponsive. The forms shall be filled out complete; any omissions may cause the entire Proposal to be rejected.
- 2.3 Proposals must be made on the *Form of Proposal* provided herein and must not be altered, erased, or interlined in any manner. The Bidder shall fill in the *Form of Proposal* as detailed in the Terms and Conditions. The Bidder may retain one (1) copy, but the original, fully executed, must be inserted in or attached to the Bid Documents. Also, one (1) additional copy of all executed forms and supporting information shall be supplied.
- 2.4 The Bidder shall furnish certain information, as required by the Bid Documents regarding the equipment on which he is bidding. Two (2) copies of the information, together with the manufacturer's literature setting forth the guarantees and describing the equipment on which he is bidding shall be included as part of the Proposal. If one manufacturer is bidding through two or more agents or representatives, descriptive literature, guarantees, etc., may be submitted in duplicate in one sealed envelope, which will be considered and treated as though it contained a sealed bid. This envelope shall contain a list of the names of Bidders to whom the information applies. Each sealed Bid Proposal without this information shall state the name of the manufacturer who is furnishing the information. Additional sets of the Specifications may be obtained upon a payment of Fifty Dollars (\$50) non-refundable deposit by approved Bidders.
- 2.5 Bids may be modified by the Bidder's removal of his original and the submittal of a completely revised bid package in full compliance with the Bid Documents if received prior to the time of opening bids and if included in the public reading of such bids. No oral or telephonic Proposals will be considered.
- 2.6 Proposals shall include a Form of Exceptions utilizing forms provided which shall itemize each and every exception from the Bid Documents. The Form of Exceptions shall state the section, subsection, and paragraph designations from the part of the Specifications to which exception is taken and explain in detail the nature of the exception. A copy of this Form of Exceptions is included in the *Form of Proposal*. Exceptions will not necessarily eliminate a Bidder from consideration, even if bids without exceptions are received from others. The treatment of exceptions will be based entirely on the overall best interests of the Owner.
- 2.7 Should the Bidder find discrepancies in the documents or fail to understand their meaning, he shall immediately notify the Engineer, who will send written instructions to all Bidders. Neither the Owner nor the Engineer will be responsible for any oral instructions.

- 2.8 The Bidder shall be the manufacturer of the equipment, or the Bidder shall submit with the *Form of Proposal* a notarized statement that the Bidder is authorized by the manufacturer to tender the Proposal as submitted and that the manufacturer will guarantee the suitability and adequacy of the equipment proposed, and will be bound by the Specifications, as though the manufacturer had submitted the Proposal.
- 2.9 In the event that the Bidder proposes any change or deviation from the Engineer's Plans and Specifications, such Proposal changes or deviations must be submitted at the time bids are opened. The Owner reserves the right to reject any such proposed changes or deviations. All exceptions must be stated on the Form of Exceptions. Failure to submit a Form of Exceptions will imply strict adherence to the Plans and Specifications.
- 2.10 No Bid Proposal may be withdrawn after the scheduled closing time for the receipt of bids for a period of sixty (60) days pending the purchase order by the successful Bidder. Should the successful Bidder default and not accept a purchase order, then the purchase order may be offered to the next lowest responsible, responsive Bidder whose Proposal is evaluated as acceptable
- 2.11 Prior to submission of the Proposal, the Bidder shall make and shall be deemed to have made a careful examination of the Plans and Specifications on file with the Owner and with the Engineer and all other matters that may affect the cost and the time of completion of the work.
- 2.12 The Purchase Order, when accepted, shall be deemed to include the Specifications for the equipment, and the Bidder shall not claim any modification thereof resulting from any representative or promise made at any time by an officer, agent, or employee of the Owner or by any other person.
- 2.13 Firm quotations should be based upon placement of an order within sixty (60) days from bid date.
- 2.14 The Owner reserves the right to accept any schedule, combination of schedules, or any portion of a schedule.

3.0 Bid Security

- 3.1 Each Proposal shall be accompanied by a cash deposit, cashier's check, or certified check drawn on a bank or trust company insured by the Federal Deposit Insurance Corporation or Savings Association Insurance Fund, or a Bid Bond in an amount not less than five percent (5%) of the Proposal. The Owner will retain said deposit as liquidated damages in the event of failure of the Successful Bidder to execute the Purchase Order within ten (10) days after the award.
- 3.2 Bid Bond shall be conditioned that the Surety will, upon demand, forthwith make payment to the Obligee upon said Bond if the Bidder fails to accept a purchase order in accordance with the Bid Bond, and that upon failure to forthwith make payment, the Surety shall pay to the Obligee an amount equal to double the amount of said Bond.
- 3.3 Only one (1) Bid Bond is required, the amount of which shall be based on the total amount of the bid. The value for the Bid Bond shall be based on the Bid Schedule of maximum total amount.

4.0 Performance Bond/Payment Bond

A Performance Bond/Payment Bond is not required for this project.

5.0 Bulletins and Addenda

Any bulletins or addenda to the Specifications issued during the time of bidding are to be considered covered in the Proposal, and in accepting a purchase order, they will become a part thereof. Receipt of addenda shall be acknowledged by the Bidder on the *Form of Proposal*.

6.0 Delivery of Equipment

- 6.1 The prefabricated metal relay control house shall be shipped to the site with unloading by the Bidder. Assembly of any component parts removed for shipment and field testing of the unit will be performed by the Bidder under the supervision of the manufacturer's field service engineer. See the vicinity map located in the appendices for site location.
- 6.2 Units are to be shipped utilizing an open-top truck to facilitate unloading with a crane or fork truck. Units are to be shipped direct from the manufacturing site, with no intermediate transfers. Shipping with the manufacturer's own trucks is preferred.
- 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 A Delivery Schedule is provided as part of the Proposal on which the Bidder shall indicate the delivery schedule for his materials and equipment. Strict adherence to the quoted delivery schedule is expected. Special attention should be given to the stipulations for delivery outlined in the General Conditions. Furthermore, the Bidder shall match his scheduled deliveries to the schedule preferred by the Owner, if noted in the *Form of Proposal*.
- 6.5 Release for shipment is to be granted by the Owner or the Engineer based upon the manufacturer's compliance with the following:
 - 6.5.1 Furnishing of the requisite number of copies of the Final Drawings as called for in the Specifications.
 - 6.5.2 Coordination of manufacturing and delivery with Owner's construction schedule as may be noted in these Specifications.
 - 6.5.3 Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to all deliveries.
- 6.6 Delivery of all items of equipment shall be made at such time as to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Thursday, holidays excluded. The Owner will furnish escort to the substation site. Ultimate delivery shall be at the discretion of the Owner.
- 6.7 In the event that delays occur, the Bidder shall be responsible for all shipping demurrage unless such delays are caused solely by the Owner.
- 6.8 Bidder will be responsible for unloading equipment upon arrival.

7.0 Contract

- 7.1 The award of Contract will be made to the lowest responsible, responsive Bidder as soon as practical, provided that in the selection of materials and equipment a purchase order may be awarded to a responsible Bidder other than the lowest in the interest of standardization, or ultimate economy if the advantage of such standardization or ultimate economy is clearly evident. The Owner reserves the right to reject any and all bids.
- 7.2 The Owner reserves the right to waive minor irregularities or minor errors in any Proposal if it appears to the Owner that such irregularities or errors were made through inadvertence. The Bidder must correct any such irregularities or errors so waived on the Proposal prior to its acceptance.
- 7.3 In estimating the lowest cost to the Owner as one of the factors in deciding the Award of the purchase order, the Owner will consider, in addition to the prices quoted in the Proposal, the following:
 - a. Equipment delivery (days),
 - b. Adherence to the Plans and *Technical Specifications*,

- c. Evaluation of equipment suitability to the system as noted and submitted by the Bidder,
- d. The Bidder's intended method of shipment of the materials and equipment, and
- e. Firm prices.

8.0 Drawings and Documentation

The Bidder shall provide adequate documentation to fully describe the equipment being furnished. Each set of Approval and Final Drawings and documentation shall include, but not be limited to, the following information.

- a. List of Material which shall include a complete description of all items furnished including quantity, catalog numbers, ratings, and manufacturer.
- b. Structural, electrical, and mechanical drawings for the prefabricated relay control house.
- c. Heating, Ventilation, and Air conditioning calculations shall be submitted for approval with structural drawings.
- d. The building manufacturer shall furnish complete Drawings showing anchor bolt settings, sidewall, underwall and roof framing, transverse cross-sections, covering and flashing details, and accessory installation details.
- e. The prefabricated relay control house shall be designed for earthquake zone one (1). Structural drawings shall note earthquake certification and bear the seal of a professional engineer.

All Drawings shall have marked on each sheet the label:

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA
GREENVILLE SOUTH 230 KV POD NO. 3**

Dimensional information shown on all Drawings shall be stated in feet and inches.

All Drawings and documentation shall be submitted directly to the Owner's Engineer, Booth & Associates, LLC, 5811 Glenwood Avenue, Suite 109, Raleigh, North Carolina 27612; Attention: Mr. Michael L. Clements, PE.

8.1 Drawings Furnished with Specifications

Booth & Associates, LLC Substation Design Drawings have been prepared for The Owner's substation. These Drawings are located in the Appendices.

8.2 Drawings Furnished by Manufacturer

8.2.1 Approval Drawings

Before proceeding with fabrication, the manufacturer shall submit for review and approval to the Engineer sufficient Drawings to demonstrate that all parts conform to the requirements and intent of these Specifications. Each set of Drawings shall include those Drawings as outlined in Section 5.0.

For drawing approval, the manufacturer shall submit four (4) sets each of the Drawings.

Approval of Drawings shall not be held to relieve the manufacturer of obligations to meet all requirements in the Specifications, of responsibility for correctness of the Drawings, or of responsibility to meet original shipping promise on the basis of the Owner being allowed three (3) weeks for approval.

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

The Owner's Engineer may require a second submittal of Shop Drawings if, in the opinion of the Engineer, such is required due to the extent of changes required on the first submittal. If an extension of time is required due to a

protracted drawing approval process, the price will remain as quoted for the quoted delivery.

8.2.2 Final Drawings

Contingent upon Approval Drawing review and product manufacture, the Bidder shall issue final documentation as follows:

- a. One (1) complete set of all Drawings, revised to "as-built" status.
- b. One (1) complete set of all Drawings, revised to "as-built" status, released on two (2) separate CD-ROMs, compatible with AutoCAD 2010.
- c. Two copies of manufacturers HVAC and ventilation manuals are required.
- d. All Drawings are to be certified correct and supplied within a reasonable length of time prior to shipment of the equipment.

9.0 Manufacturer's Field Representative

The manufacturer shall include as a separate line item in the Bid Schedule the cost of services of a Field Service Engineer for a period of one (1) working day per unit. The manufacturer is responsible for all travel time and expenses. The duties of the Field Service Engineer shall include supervising installation of component parts removed for shipment, and to perform certain field tests, outlined in the *Technical Specifications*. All associated cost for field service shall be included in the base bid. If the bidder fails to include all costs, an amount of \$5,000 per unit will be used for evaluation purposes.

10.0 Payment

- 10.1 Invoices shall be submitted in triplicate to the Engineer for review and approval. The address for submittal of all invoices is: Booth & Associates, LLC, 5811 Glenwood Avenue, Suite 109, Raleigh, North Carolina 27612; Attention: Michael L. Clements, PE.
- 10.2 Payment by the Owner of ninety (90) percent of the purchase price shall be made to the Successful Bidder in a lump sum after delivery.
- 10.3 There shall be a ten-percent (10%) retainage on invoices until all equipment, with proper instruction books per Specifications, and certified test reports have been approved and accepted by the Owner and the Engineer. The Owner reserves the right to hold this retainage for a period of up to ninety (90) days without penalty to verify completeness of delivery. A ten-percent (10%) Performance Bond may be provided in lieu of retainage provisions. Deviation from the foregoing payment provisions will be considered less than responsive.

GENERAL CONDITIONS

1.0 Drawings and Specifications

The Drawings and Specifications are complementary, one to the other. That which is shown on the Drawings or called for in the Specifications shall be as binding as if it were both called for and shown. The intention of the Drawings and Specifications is to include all labor, materials, transportation, equipment, and any and all other things necessary to do a complete job, which may include manufactured items and field service assistance. In case of discrepancy or disagreement in the Purchase Order, the order of precedence shall be: Purchase Order, Specifications, Drawings.

2.0 Clarifications and Detail Drawings

In such cases where the nature of the work requires clarification by the Engineer, such clarification shall be furnished by the Engineer with reasonable promptness by means of written instructions or Detail Drawings or both. Clarifications and Drawings shall be consistent with the intent of Bidding Documents, and shall become a part thereof.

3.0 Copies of Drawings and Specifications

The Engineer will furnish free of charge to the Bidder one (1) copy of the Drawings and Specifications. Additional sets of these Specifications may be obtained upon request and a non-refundable deposit of Fifty Dollars (\$50.00) by approved Bidders.

4.0 Ownership of Drawings and Specifications

All Drawings and Specifications are instruments of service and remain the property of the Engineer whose name appears thereon. The use of these instruments on work other than these Bid Documents without permission is prohibited. All copies of Drawings and Specifications other than final copies shall be returned to the Engineer upon request after completion of the work.

5.0 Royalties, Licenses, and Patents

It is the intention of the Bidding Documents that the work covered herein will not constitute in any way an infringement on patents. The Bidder shall protect and save harmless the Owner against suit on account of alleged or actual infringement. The Bidder shall pay all royalties and/or license fees required on account of patented articles or processes, whether or not the patent rights are evidenced hereinafter.

6.0 Uncorrected Faulty Work

The Bidder shall be notified of faulty or damaged work and shall have the option to respond in a reasonable period of time. Should the correction of faulty or damaged work be considered inadvisable or inexpedient by the Owner or the Engineer, the Owner shall be reimbursed by the Bidder for the same by a deduction in the Purchase Order prices arrived at by a fair estimate of the probable cost of correction, approved by the Engineer.

7.0 Liquidated Damages

The Bidder shall commence manufacture upon issuance of a Purchase Order from the Owner, and shall fully complete delivery as per the Delivery Schedule in the *Form of Proposal*. For each day in excess of the proposed dates, the Bidder shall make payable to the Owner the sum of five hundred dollars (\$500.00) as liquidated damages (and not as a penalty), reasonably estimated in advance to cover the losses to be incurred by the Owner by reason of failure of said Bidder to complete delivery within the time specified, such time being in the essence of this Purchase Order and material consideration thereof.

8.0 Delays and Extension of Time

8.1 The time to be allowed for delivery is stated in the *Form of Proposal*. The Bidder, upon notice of award of the Purchase Order, shall prepare a delivery schedule based on the allowed time and submit such schedule to the Engineer for approval.

- 8.2 If Bidder is delayed at any time in the progress of the work by any act of negligence by the Owner or the Engineer, by any separate Bidder employed by the Owner, or by changes ordered in the work, then the time of completion shall be extended for such reasonable time as the Engineer may decide.
- 8.3 No extension of time for completion will be made for ordinary delays and accidents. Extensions may be granted for delays ordered by the Engineer if the request has been made in writing within forty-eight (48) hours after the order to cease work has been given.

9.0 Assignments

The Bidder shall not assign any portion of this Purchase Order nor subcontract in its entirety except as fully explained in the *Form of Proposal* and accepted by the Owner. No funds or sums of money due or to become due to the Bidder under this Purchase Order may be assigned.

10.0 Guarantee

The Bidder shall guarantee his materials and workmanship against defect due to faulty materials, faulty workmanship, or negligence for a period of one (1) full year from date of energization and/or eighteen (18) months from date of delivery, whichever applies. He shall make good such defective materials or workmanship and any damages resulting therefrom without cost to the Owner. Each class of equipment shall carry a full one (1) year warranty against defects from the date of energization.

11.0 Change In Drawings and/or Specifications

The Owner, or the Engineer on behalf of the Owner, may make changes to Drawings and/or Specifications after award of the Purchase Order or while fabrication is in progress. The compensation for such changes shall be agreed upon in writing between the Bidder and the Owner prior to commencement of work involving the change. No payment shall be made to the Bidder for correcting work not in compliance with Specifications.

12.0 Insurance

During the term of the Contract, the Bidder at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Bidder shall provide and maintain the following coverage and limits:

- 12.1 Worker's Compensation - The Bidder shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$1,000,000.00, covering all of Bidder's employees who are engaged in any work under the Contract. If any work is sublet, the Bidder shall require the subcontractor to provide the same coverage for any of his employees engaged in any work under the Contract.
- 12.2 Commercial General Liability - General Liability Coverage on a Comprehensive Broad Form on an occurrence basis in the minimum amount of \$1,000,000.00 Combined Single Limit. (Defense cost shall be in excess of the limit of the liability.)
- 12.3 Automobile - Automobile Liability Insurance, to include liability coverage, covering all owned, hired, and non-owned vehicles, used in connection with the Contract. The minimum combined single limit shall be \$150,000.00 uninsured/under insured motorist; and \$1,000.00 medical payment.
- Public Liability Insurance for bodily injury or death \$1,000,000 for one person, and \$2,000,000 for each accident.
 - Property Damage Insurance \$2,000,000 for each accident and \$2,000,000 aggregate for accidents during the policy period.

- 12.4 Motor Vehicle Liability Insurance shall be for not less than the following amounts:
- Bodily injury or death \$1,000,000 for one person and \$2,000,000 for each accident.
 - Property damage is \$2,000,000 for each accident.
- 12.5 Copies of Certificates of Insurance for all aforementioned policies shall be furnished by the Bidder and shall be attached to the respective pages of the Contract Agreement at the time of signing.
- 12.6 It shall be understood that the above-required insurance 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 Buyer II.

BUYER II:
Greenville Utilities Commission.
401 South Greene Street
Greenville, North Carolina 27835

- 12.7 Each certificate must not terminate before the contract completion date.

Requirements - Providing and maintaining adequate insurance coverage is a material obligation of the Bidder and is of the essence of this Contract. 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 by the Commissioner of Insurance to do business in North Carolina. The Bidder shall at all times comply with terms of such insurance policies, and all requirements of the insurer under any 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 Bidder shall not be interpreted as limiting the Bidder's liability and obligations under the Contract.

13.0 Inspection at Bidder's Site

The Owner reserves the right to inspect, at a reasonable time, the equipment/item, plant or other facilities of a prospective Bidder prior to Contract award, and during the Contract term as necessary for the Owner's determination that such equipment/item, plant or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the Contract.

14.0 Advertising

Bidder agrees not to use the existence of this Contract or the name of the Owner as part of any commercial advertisement.

15.0 Access to Persons and Records

An independent auditor shall have access to persons and records as a result of all Contracts or grants entered into by the Owner in accordance with General Statute 147-64.7 insofar as they relate to transactions with the Owner.

16.0 Equal Employment Opportunity, Minority Business Participation Program

During the performance of this work, the Bidder agrees as follows:

- 16.1 The Bidder will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. The Bidder will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The Bidder agrees to post in conspicuous places available to

employees and applicants for employment notices setting forth the provisions of the nondiscrimination clause.

- 16.2 The Bidder, in all solicitations or advertisements for employees placed by or on behalf of the Bidder, will state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or physical handicap.
- 16.3 The Bidder will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Purchase Order or understanding, a notice advising the labor union or workers' representative of the Bidder's commitments under the Equal Employment Opportunity Section of this Specification and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 16.4 In the event of the Bidder's noncompliance with the nondiscrimination clauses of this Specification or with any of such rules, regulations, or orders, the Purchase Order may be canceled, terminated, or suspended in whole or in part and the Bidder may be declared ineligible for further Owner contracts.
- 16.5 The Bidder will include the provisions of this section in every Subcontract or Purchase Order unless exempted by rules, regulations, or orders of the Owner, so that such provisions will be binding upon each Subcontractor.
- 16.6 The Owner 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.

17.0 Indemnification

Bidder agrees to indemnify and save GUC 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 Third Party claims, actions, costs, expenses, including reasonable attorney fees, judgments, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to third party tangible property arising out of the negligent performance of the terms of this Contract by Bidder; including, but not limited to, Bidder's employees, agents, subcontractors, and others designated by Bidder to perform work or services in, about, or attendant to, the work and services under the terms of this Contract. Bidder shall not be held responsible for any losses, expenses, claims, subrogation, actions, costs, judgments, or other damages, directly 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 Bidder 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 the Bidder.

18.0 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.

19.0 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 Bidder to notify the GUC Buyer II, 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

20.0 Patents And Copyrights

The Bidder 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.

21.0 Patent And Copyright Indemnity

The Bidder 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 Bidder shall be notified promptly in writing by GUC of any such claim; (2) that Bidder 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 Bidder 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 Bidder or from the use of combination of products provided by the Bidder with products provided by GUC or by others; and (5) should such product(s) become, or in the Bidder's opinion likely to become, the subject of such claim of infringement, then GUC shall permit Bidder, at Bidder'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.

22.0 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 Bidder'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 Bidder may be grounds for rejection of the Bidder's proposal. The Bidder 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.

23.0 Confidential Information

GUC will keep trade secrets which the Bidder does not wish to be disclosed, except as provided by statute and rule of law. Each page shall be identified in boldface at the top and bottom as

“CONFIDENTIAL” by the Bidder. Cost information shall not be deemed confidential. The determination of whether a matter is confidential will be determined by North Carolina law.

24.0 Assignment

No assignment of the Bidder’s obligations or the Bidder’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 Buyer II, solely as a convenience to the Bidder, GUC may:

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

25.0 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.

26.0 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.

27.0 Administrative Code

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

28.0 Execution

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

29.0 Clarifications/Interpretations

Any and all questions regarding these Terms and Conditions must be addressed to the GUC Buyer II. 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 Bidder and the GUC Buyer II.**

30.0 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.

31.0 Termination of Agreement

GUC or Bidder may terminate this Agreement for just cause at any time. Bidder 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) Bidder’s persistent failure to perform in accordance with the Terms and Conditions, (2) Bidder’s disregard of laws and regulations related to this transaction, and/or (3) Bidder’s substantial violation of the provisions of the Terms and Conditions

32.0 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.

33.0 Integrated Contract

These Terms and Conditions, Instructions to Bidders, Specifications, and the selected Bidder'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.

34.0 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.

35.0 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.

36.0 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

37.0 Notices

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

Mr. Cleve Haddock
Purchasing, Buyer II
Greenville Utilities Commission
P.O. Box 1847
Greenville, NC 27835-1847

CONTRACT AGREEMENT

THIS CONTRACT, made this _____ day _____, 2016, by _____, hereinafter called Bidder, and GREENVILLE UTILITIES COMMISSION (GUC) OF THE CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA, a corporation, hereinafter called the Owner.

WITNESSETH

THAT WHEREAS, a Contract for

PREFABRICATED METAL RELAY CONTROL HOUSE FOR GREENVILLE SOUTH 230KV POD NO. 3

has recently been awarded to Bidder by the Owner at and for a total price of _____ (\$ _____) named in the Bidder's Proposal attached hereto;

AND WHEREAS, it was provided in said award that a formal Contract would be executed by and between Bidder and Owner, evidencing the terms of said award, and that Bidder would commence the work to be performed under this agreement on a date to be specified in a written order of Owner, and would fully complete all work thereunder no later than ____ days from the date of contract.

NOW, THEREFORE, Bidder doth hereby covenant and agree with Owner that it will well and faithfully perform and execute such work and furnish such work and furnish such materials and equipment in accordance with each and every one of the conditions, covenants, stipulations, terms, and provisions contained in said Specifications in accordance with the Plans, at the total price named therefore in the Bidder's Proposal attached hereto, and will well and faithfully comply with and perform each and every obligation imposed upon it by said Plans and Specifications and the terms of said award.

Bidder shall promptly make payments to all laborers and others employed thereon.

Bidder shall be responsible for all damages to the property of the Owner that may be consequent upon the normal procedure of its work or that may be caused by or result from the negligence of Bidder, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. Bidder must restore all property so injured to a condition as good as it was when Bidder entered upon the work.

By execution of this Contract, both parties acknowledge the following conditions as a part of their respective obligations:

- a) Governing Law - This Contract shall be construed and enforced in accordance with the laws of the State of North Carolina. All parties agree to the jurisdiction of the Courts of North Carolina with respect to any action or dispute arising between the parties.
- b) Further Assurances - The parties hereto agree to execute and deliver any and all papers and documents which may be necessary to carry out the terms of this Contract.
- c) Entire Contract - This Contract (including materials incorporated herein by reference) constitutes the entire agreement between the parties hereto and there are no agreements, representations, or warranties which are not set forth herein. All prior negotiations, agreements, and understandings are superseded hereby. This Contract may not be amended or revised except by a writing signed by all parties hereto. This Contract shall be construed and interpreted without any presumption either for or against the party who caused its preparation.

- d) Binding Effect - This Contract shall be binding upon an inure to the benefit of the heirs, legal representatives, successors and assigns of the respective parties hereto, provided that this Contract and all rights hereunder may not be assigned by any party hereto without the written consent of the other party.
- e) Time of Performance - Time is of the essence with regard to the performance of this Contract.
- f) Survivability - The terms of this Contract shall survive execution and delivery of any deeds or bills of sale called for hereunder.
- g) Headings - The headings in the paragraphs of this Contract are inserted for convenience only and do not constitute a part hereof.

Bidder shall furthermore be responsible for and required to make good at its expense any and all damages of whatever nature to persons or property arising during the period of the Contract caused by carelessness, neglect, or want of due precaution on the part of Bidder, its agents, employees, or workmen. Bidder shall also indemnify and save harmless the Owner, and the officers and agents thereof, from all third party claims, suits, and proceedings of every name and description which may be brought against the Owner, or the officers and agents thereof, for or on account of any injuries or damages to persons or property received or sustained by any person or persons, firm, or corporation, by or in consequence of any materials used in said work, to the extent caused by the negligence of Bidder, its agents, employees, servants, or workmen.

It is agreed and understood that the Notice to Prospective Bidders, Definitions, Instructions to Bidders, and Technical Specifications, the accepted Bidder's Proposal, and the enumerated addenda are incorporated in this Contract by reference and are an integral part thereof as set forth herein.

And the Owner doth hereby covenant and agree with Bidder that it will pay to Bidder, when due and payable under the terms of said Specifications and said award, the above-mentioned sum; and that it will well and faithfully comply with and perform each and every obligation imposed upon it by said Specifications and the terms of said award.

Bidder shall, upon completion of all work awarded under this Contract, furnish to the Owner invoices or copies of invoices for all materials purchased for said work; and such invoices shall state the amount of North Carolina sales tax paid for said materials. Bidder shall also furnish the Owner an affidavit certifying the total costs of materials purchased for all work performed under the Contract and the total amount of state sales tax paid for said materials.

Whenever used herein, the singular shall include the plural, the plural the singular, and the use of any genders shall be applicable to all genders as the context may require.

PROVIDE CURRENT LIABILITY INSURANCE CERTIFICATE(S)

General Conditions, 12.0 Insurance

COVERAGES:

1. Workmen's Compensation Insurance shall include all of the Bidder's employees employed at the site of the project under his Contract. In case any class of employees engaged in hazardous work under this Contract at the site of the project is not protected under the Workmen's Compensation Statute, the Bidder shall provide adequate coverage for the protection of his employees not otherwise protected.
2. Public Liability and Property Damage Insurance shall be in such amounts as to adequately protect the Owner and the Bidder from claims for damages for personal injury, including accidental death, as well as from claims for property damages which may arise from operations under this Contract, whether such operations be by himself or by anyone directly or indirectly employed by him. The amount of such insurance shall be for the following:

Public Liability Insurance for bodily injury or death \$1,000,000 for one person, and \$2,000,000 for each accident.

Property Damage Insurance \$2,000,000 for each accident and \$2,000,000 aggregate for accidents during the policy period.

3. Motor Vehicle Liability Insurance shall be for the following amounts:

Bodily injury or death \$1,000,000 for one person and \$2,000,000 for each accident.

Property damage is \$2,000,000 for each accident.

Copies of Certificates of Insurance for all aforementioned policies shall be furnished by the Bidder and shall be attached to the respective pages of the Contract Agreement at the time of signing.

It shall be understood that the above-required insurance 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 the certificate holder.

CERTIFICATE HOLDER:

Greenville Utilities Commission
401 South Green Street
Greenville, NC 27835-1847
Contact: Mr. Cleve Haddock
Phone: 252-551-1533

EXPIRATION:

Each certificate must not terminate before the contract completion date.

IN TESTIMONY WHEREOF, Bidder and Owner have duly signed and sealed this Contract.

BIDDER:

(Imprint Corporate Seal _____(SEAL)
Below this line)

By _____(SEAL)

Title _____ President _____

ATTEST:

By: _____

Title: _____ Secretary _____

**GREENVILLE UTILITIES COMMISSION (GUC)
OF THE CITY OF GREENVILLE, PITT COUNTY,
NORTH CAROLINA**

By _____
Anthony C. Cannon

Title: _____ General Manager / CEO _____

ATTEST:

By: _____
Amy Carson Quinn

Title: _____ Executive Secretary _____

APPROVED AS TO FORM AND LEGALITY:

By: _____
Phillip R. Dixon

Title: _____ General Counsel _____

CONTRACT INSTRUCTIONS

INSTRUCTIONS FOR PROPER SIGNING

If Bidder is an individual, sign on first line only and designate trade name below first line, thus:

_____ John Jones _____ (SEAL)
Trading as Jones Paving Company

If Bidder is a partnership, sign partnership name on first line; have at least one general (not limited) partner sign on second line, and put his designation as partner on third line, thus:

_____ JONES PAVING COMPANY _____ (SEAL)
By _____ John Jones _____ (SEAL)
Title _____ General Partner _____

If Bidder is a corporation, sign corporate name on first line (exactly) as such appears on the corporate seal, have the President or a Vice President sign on second line, put his title on third line, have the Secretary or Assistant Secretary sign on the left "Attest" line (adding the word "Assistant" before the word "Secretary" if the Assistant Secretary is signing), and imprint corporate seal above the word "Attest", thus:

_____ JONES PAVING COMPANY, INC. _____ (SEAL)
By _____ John Jones _____ (SEAL)
Title _____ President _____

ATTEST:

_____ Thomas Jones _____
Assistant Secretary

CERTIFICATE OF ATTORNEY

**GREENVILLE UTILITIES COMMISSION (GUC)
OF THE CITY OF GREENVILLE,
PITT COUNTY, NORTH CAROLINA**

This is to certify I have examined the attached Contract Documents, and after such examination I am of the opinion that such Documents conform to the laws of the State of North Carolina, the execution of the Contract is in due and proper form, the representatives of the respective contracting parties have full power and authority to execute such Contract on behalf of the respective contracting parties, and the foregoing agreements constitute valid and binding obligations on such parties.

By: _____
Phillip R. Dixon

Title: _____
General Counsel

Date: _____

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

By: _____
Jeff W. McCauley

Title: _____
Chief Financial Officer

Date: _____

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**PREFABRICATED METAL RELAY CONTROL HOUSE FOR
GREENVILLE SOUTH 230KV POD NO. 3**

FORM OF PROPOSAL
*(Provide **one** original and **one** copy)*

Respectfully submitted this ____ day of _____, 2016

| | |
|--|----------------|
| OWNER: | BIDDER: |
| Greenville Utilities Commission 401 South Greene Street Greenville, North Carolina 27834 P.O. Box 1847 Greenville, North Carolina 27835 Mr. Cleve Haddock Purchasing, Buyer II Office: 252-551-1533 Cell: 252-551-3302 | NAME |
| | TITLE |
| | STREET ADDRESS |
| | CITY/STATE/ZIP |
| | PHONE: |
| | FAX: |
| | E-MAIL: |
| SIGNATURE | |
| SUPPLIER OF PROPOSED EQUIPMENT | |
| MANUFACTURER | |
| STREET ADDRESS | |
| CITY / STATE / ZIP | |

TERMS AND CONDITIONS

1. The undersigned (hereinafter called the "Bidder") hereby proposes to sell and deliver to the Owner upon the terms and conditions herein stated, the materials, equipment, and services (hereinafter called the "Material") specified in the Bid Schedule(s) attached hereto, and by this reference made a part hereof, for the Materials for the Owner, and:
 - a. These bid documents that include *Notice to Prospective Bidders, Instructions to Bidders, General Conditions, and Technical Specifications* for the prefabricated metal relay control house.
 - b. Manufacturer's specifications, both as set forth herein and in Manufacturer's literature (two [2] sets) attached hereto, or furnished separately as provided for in the *Instructions to Bidders*;
 - c. Legal negotiations, with low bidder only, after bids are opened, for budgetary compliance.
2. The prices as quoted herein:
 - a. Are firm unless otherwise stated,
 - b. Are FOB to the location(s), as outlined in the *Instructions to Bidders*,
 - c. Do include the cost of delivery to the site at the Bidder's Risk, assuming unloading by Others, and
 - d. Have state sales tax shown as a separate item, if applicable.
3. Invoice shall list the appropriate state sales tax as a separate item
4. The Bidder further declares that he has examined the site of the work and informed himself fully regarding all conditions pertaining to the location where the Material is to be delivered; that he has examined the *Technical Specifications* for the work and Bid Documents relative thereto; has read all special provisions furnished prior to the opening of the bids; and that he has satisfied himself relative to the work to be performed.
5. The Bidder proposes and agrees if the following Bid Schedule(s) in this Proposal is accepted, to contract with the Owner, in the form of a purchase order specified, to furnish all necessary equipment and materials, except materials and equipment specified to be furnished by the Owner, complete in accordance with the Bid Documents, to the full and entire satisfaction of the Owner, with a definite understanding that no money will be allowed for extra work except as set forth in the *General Conditions*, and as filed on Change Order Forms.
6. The materials will conform to the *Technical Specifications* attached hereto and made a part hereof.
7. The Material prices set forth herein do not include any sums which are or may be payable by the Bidder on account of State Sales Tax upon the sale, purchase or use of the material. If any such tax is applicable to the sale, purchase or use of the material hereunder, the amount thereof shall be added to the purchase price and paid by the Owner after the Bidder has ascertained the actual sales tax to be included in the purchase order price.
8. The Owner reserves the right to accept any schedule, combination of schedules, or any portion of a schedule.
9. A *Form of Exceptions* to the *Technical Specifications*, prepared in accordance with the *Instructions to Bidders*, is attached hereto. The Bidder shall document any exceptions with deviation from the bid documents and specifications in the *Form of Proposal*. Otherwise, the complete compliance is assumed.
10. Proposals shall include a complete bill of materials, identifying each item by catalog number, manufacturer, ratings, characteristics, types, sizes, etc., of all materials and equipment required for a complete and coordinated substation. A simple statement that all necessary materials and equipment will be provided is not acceptable.
11. Title to the materials shall pass to the Owner upon delivery to the location(s) specified in the *Instructions to Bidders*.

12. The Bidder warrants that the Materials will conform to the performance data and guarantees which are attached hereto and by this reference made a part thereof.
13. The Bidder warrants the accuracy of all statements contained in the Bidders Qualifications, if any shall be submitted, and agrees that the Owner shall rely upon such accuracy as a condition of the Purchase Order in the event that this Proposal is accepted.
14. By the submission of this bid, the Bidder certifies that:
 - a. The bid has been arrived at by the Bidder independently and has been submitted without collusion with any other Bidder of materials, supplies, or equipment of the type described in the *Notice to Prospective Bidders* or the *Technical Specifications*, and
 - b. The contents of the bid have not been communicated by the Bidder, nor, to its best knowledge and belief, by any of its employees or agents, to any person not an employee or agent of the Bidder or its Surety on any Bond furnished herewith, and will not be communicated to any person prior to the official opening of the bid.
15. The Bidder further agrees that in case of failure on his part to accept said purchase order within ten (10) consecutive calendar days after written notice has been given of the award of the Purchase Order, the Bid Security accompanying this bid, and the monies payable thereon, shall be paid into the funds of the Owner account set aside for this project, as liquidated damages for such failure; otherwise the check or cash accompanying the *Form of Proposal* shall be returned to the Bidder.
16. If, in submitting this Proposal, the Bidder has made any change in the *Form of Proposal*, the Bidder understands that the Owner may evaluate the effect of such change as they see fit or they may exclude the Proposal from consideration in determining the issue of Purchase Order.

BID SCHEDULES

BID SCHEDULE NO. 1 – Base Bid – Prefabricated Relay Control House

| DESCRIPTION | QUANTITY | UNIT PRICE | TOTAL PRICE |
|---|----------|------------------------------------|-------------|
| Design, furnish, and install Prefabricated Metal Relay Control House for the Greenville South 230 kV POD No. 3 , all as per Specifications, including delivery to the site, with unloading | 1 Each | \$ _____ | \$ _____ |
| | | BASE BID ONLY: | \$ _____ |
| | | State Sales Tax (If Applicable) | \$ _____ |

Proposed HVAC Unit:
 Manufacturer: _____
 Model No.: _____
 EER: _____

BID SCHEDULE NO. 1 – Delivery Schedule

The prices of each control house and equipment set forth herein shall include the cost of delivery to each site at the Bidder's risk. The schedule of delivery shall be as follows:

Building shall be delivered no later than Tuesday, November 1, 2016.

| Item | Delivery Schedule (Days) * |
|--------------------------------------|----------------------------|
| Submittal of Approval Drawings | _____ |
| Submittal of Final Drawings** | _____ |
| Delivery of Materials ^{1**} | _____ |

- * After the receipt of the written order of the Owner in consecutive calendar days
- ** Allow two (2) weeks for Engineer's review and turnaround for all Drawing submittals

The time for delivery shall be extended for the period of any reasonable delay due exclusively to causes beyond the control and without fault of the Bidder, including acts of God, fires, floods, strikes, and delays in transportation.

Delivery of all items of equipment to the Owner'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.

BID SCHEDULE NO. 1 – Field Service Engineering (Per day rate for additional days)

Per Day Rate (including expenses) for field service engineering \$ _____/Day

Rate per one round trip (including expenses) to the site: \$ _____/Day

AFFIDAVIT OF BIDDER

The final payment of retained amount due the Bidder on account of the Purchase Order shall not become due until the Bidder has furnished to the Owner through the Engineer an affidavit signed, sworn, and notarized to the effect that all payments for Material, services, or any other reason in connection with this Purchase Order have been satisfied and that no claims or liens exist against the Bidder in connection with this Purchase Order. In the event that the Bidder cannot obtain similar affidavits from Subcontractors to protect the Bidder and the Owner from possible liens or claims against the Subcontractor, the Bidder shall state in his affidavit that no claims or liens exist against any Subcontractor, and if any liens or claims appear afterward, the Bidder shall save the Owner harmless on account thereof.

Bidder: _____

By: _____

Date: _____

BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT WE _____

as Principal, and _____
as Surety, who is duly licensed to act as Surety in North Carolina, are held and firmly bound unto the Greenville Utilities Commission of Greenville, North Carolina, as Obligee, in the penal sum of _____
_____ DOLLARS (\$ _____
_____) (5% Bid Bond), lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these present.

SIGNED, Sealed and dated this _____ day of _____, 2016.

WHEREAS, the said Principal is herewith submitting a Proposal for
PREFABRICATED METAL RELAY CONTROL HOUSE
FOR GREENVILLE SOUTH 230KV POD NO. 3

and the Principal desires to file this Bid Bond in lieu of making the cash deposit as required by the bidding documents contained herein;

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such that if the principal shall be awarded the Purchase Order for which the bid is submitted and shall accept the Purchase Order within ten (10) days after the award of same to the principal, then this obligation shall be null and void; but if the principal fails to so accept such Purchase Order as required by the bidding documents contained herein, the Surety shall, upon demand, forthwith pay to the Obligee the amount set forth in the first paragraph hereof, and upon failure to forthwith make such payment, the Surety shall pay the Obligee an amount equal to double the amount of this Bid Bond as set forth in the first paragraph hereof. Power of Attorney from the Surety to its Attorney-in-Fact is attached hereto.

Principal

By _____ (SEAL)

Corporate Surety

By _____ (SEAL)

LETTER OF COMPLIANCE TO 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.

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):
 - a. 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
 - b. I employ less than twenty-five (25) employees in the State of North Carolina.
3. 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):
 - a. 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
 - b. Employ less than twenty-five (25) employees in the State of North Carolina.

Specify subcontractor: _____

_____ (Company Name)

By: _____ (Typed Name)

_____ (Authorized Signatory)

_____ (Title)

_____ (Date)

GREENVILLE UTILITIES COMMISSION

COMPANY NAME:

By: _____
Anthony C. Cannon

By: _____

Title: General Manager/CEO
(Authorized Signatory)

Title: _____
(Authorized Signatory)

Date: _____

Date: _____

Attest: _____

Attest: _____

Name (Print): Amy Carson Quinn

Name (Print): _____

Title: Executive Secretary

Title: Secretary

Date: _____

Date: _____

(OFFICIAL SEAL)

(OFFICAL SEAL)

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

By: _____
Jeff W. McCauley

Title: Chief Financial Officer

Date: _____

APPROVED AS TO FORM AND LEGAL CONTENT:

By: _____
Phillip R. Dixon

Title: General Counsel

Date: _____

**LETTER OF COMPLIANCE TO THE
IRAN DIVESTMENT ACT CERTIFICATION**

Name of Vendor or Bidder: _____

**IRAN DIVESTMENT ACT CERTIFICATION
REQUIRED BY N.C.G.S. 143C-6A-5(a)**

As of the date listed below, the vendor or bidder listed above is not listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 143-6A-4.

The undersigned hereby certifies that he or she is authorized by the vendor or bidder listed above to make the foregoing statement.

Signature

Date

Printed Name

INSERT

ADDENDA / CLARIFICATIONS / BULLETINS

Instructions to Bidders, 5. Bulletins and Addenda

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**PREFABRICATED METAL RELAY CONTROL HOUSE
FOR GREENVILLE SOUTH 230KV POD NO. 3**

| |
|---------------------------------|
| TECHNICAL SPECIFICATIONS |
|---------------------------------|

1.0 Scope

The work shall include furnishing all labor, materials, equipment, and supplies, except materials and equipment to be furnished by others, necessary for the complete installation of a Prefabricated Metal Relay Control House including all primary and secondary structural framing members, connecting bolts, covering adjustable louvers, windows, doors, flashing, closures, sealer, insulation, house wiring for outlets, switches, ventilation, and light fixtures, and other miscellaneous items as shown or called for in the Drawings or Specifications. This building is to be used for a substation relay control house upon its completion.

2.0 General

2.1 All construction shall be performed in a workmanlike manner and shall conform to the Drawings and Specifications. The installation shall conform to the latest editions of the National Electric Code, North Carolina Building Code, and the Code of Standard Practices of the Metal Building Manufacturers Association.

2.2 All materials shall be new.

2.3 The Drawings and Specifications are complementary, one to the other. That which is shown on the Drawings or called for in the Specifications shall be as binding as if both were called for and shown. The intention of the Drawings and Specifications is to include all labor, materials, transportation, equipment, and any other items necessary to do a complete job.

2.4 Standard A.I.A. Forms

2.4.1 General Conditions of the Contract, Standard Form A-201, current edition of the American Institute of Architects, is hereby made a part of this Specification to the same extent as if bound herein. The General Conditions, including modification and special conditions herein, shall become a part of the Purchase Order and shall apply to all Bidder and Subcontractors. Copies of General Conditions may be examined or obtained at the Engineer's office.

2.4.2 Modification to General Conditions

a. Permits, Fees, Etc.

The Bidder shall be responsible for obtaining and paying for all permits, licenses, certificates, inspections, etc., required, both permanent and temporary.

b. Cleaning Up

The Bidder shall be individually responsible for cleaning smears, labels, spots, and discoloration from each piece of equipment. All building materials shall be left clean and in new condition.

2.5 Bidder shall be responsible for laying out work. The Bidder shall, immediately upon entering project site for purpose of beginning work, locate all general reference points and take such action as is necessary to prevent their destruction, lay out his own work, and be responsible for any error resulting from his failure to exercise such precaution. The foundation shall be installed by the Owner.

- 2.6 The Bidder shall provide such temporary structures as are required for the proper storage of materials and equipment.
- A temporary panel and meter, if necessary, shall be supplied and connected by the Owner to operate tools, machinery, etc., during construction. The Owner will pay the monthly electric bill.
- The Bidder shall, if necessary, provide temporary heat during construction at his own expense.
- 2.7 The Bidder shall leave all holes, chases, or openings straight, true, and of proper size as may be necessary for the proper installation of the work. Bidder shall consult the Engineer and other Bidders in regards to size and location of different chases, etc., required.
- 2.8 The building manufacturer shall furnish complete Erection Drawings showing anchor bolt settings, sidewall, underwall and roof framing, transverse cross-sections, covering and flashing details, and accessory installation details to clearly indicate proper assembly of all building parts. Two (2) complete sets of Drawings shall be sent to the Engineer and two (2) complete sets to the Owner in a timely manner prior to actual construction for review of the proposed building design.
- 2.9 The building shall be of the prefabricated metal type of the dimensions shown on the Drawings and shall be similar to Parkline Type AL3. The building shall be installed on a suitable concrete pad by Bidder and shall have insulated wall panels and ceiling panels. Interior finish shall be flat surfaced metal wall panels and standing seam metal panels for ceiling. PVC conduits for electric cables, grounding conductors, and sewer and water shall be placed in the concrete floor as shown on the Drawings by others.

3.0 Site Work

Site preparation work included in this section is as follows:

- a. Clearing and initial site grading - by Owner
- b. Building foundations and concrete pad – by Owner

4.0 Structural Design - General

- 4.1 All structural steel sections and welded plate members shall be designed in accordance with the latest edition of the AISC "Specifications for the Design, Fabrication, and Erection of Structural Steel for Building".
- 4.2 All light-gauge cold-formed, structural members and exterior covering shall be designed in accordance with the latest edition of the AISC "Specifications for the Design of Cold-Formed Steel Structural Members".
- 4.3 Building components shall be designed to withstand external loading as prescribed by the applicable codes in Section 2.1.1. All drawings shall bear the seal of a currently licensed Professional Engineer.

5.0 Design Loads

- 5.1 Roof live loads shall be applied to the horizontal roof projection and shall be thirty pounds per square foot (30 psf).
- 5.2 The design wind pressure shall be twenty pounds per square foot (20 psf) applied to the primary framing and to wall components in accordance with the "Recommended Design Practices Manual of the Metal Building Manufacturers Association (MBMA)".
- 5.3 The roof shall be designed to accommodate a static vertical load of 50 pounds for each cable tray support rod as shown on the Cable Tray Plan and Cable Installation Detail.

6.0 Structural Framing - General

- 6.1 All framing members shall be shop fabricated for bolted field assembly. Field cutting or drilling when required shall be clearly noted on the Drawings.
- 6.2 Primary structural framing shall include the transverse rigid frames, intermediate frames, bearing and frames, endwall columns, and wind bracing as specified in Section 7.0.
- 6.3 Secondary structural framing shall include the purlins, girts, eave struts, flange bracing sill support, clips, and other miscellaneous structural parts. The roof system must incorporate longitudinal purlins so as to accommodate support rods for cable trays as specified.
- 6.4 All hot-rolled steel sheet, plate, and strip used in the fabrication of welded assemblies shall conform to the requirements of ASTM Specification A-529, A-572 Grade 42, or A-570 Grade "E" as applicable. All hot-roll sheet and strip used in the fabrication of cold-formed members shall conform to the requirements of ASTM Specification A-570 Grade "E". Smooth round bars for diagonal rod bracing shall conform to the requirements of ASTM Specification A-572, Grades 60 to 65.
- 6.5 Light-gauge cold-formed sections shall be manufactured by precision roll or brake forming. All dimensions shall be true, and the formed member shall be free of fluting, buckling, or waviness.
- 6.6 All shop connections shall be by welding in accordance with the AWS "Standard Code for Welding in Building Construction". Welders and welding operators shall have been previously qualified as provided in this code. All flange to web welds shall be continuous gas metal or submerged arc partial penetration fillet welds on one (1) side of the web. Other welds shall be by either the gas metal, submerged or shielded arc process. Butt welds in flange plates shall be full penetration.
- 6.7 All field connections shall be bolted. Bolts shall be machine bolts conforming to ASTM Specification A-307 or ASTM Specification A-325 as shown on the Drawings. A325 bolts shall be tightened by the turn-of-the-nut method.
- 6.8 The faying surfaces of all bolted connections shall be smooth and free from burrs and distortions.
- 6.9 All framing members shall carry an easily visible identifying mark, stamped, stenciled, or painted.

7.0 Wind Bracing

Wind bracing, when required, shall consist of diagonal rod bracing and shall be provided in both roof and sidewall. Double-roof purlins interconnected by diaphragms shall be provided between the rigid frames at all points of attachment of diagonal roof bracing. Fixed base corner columns or other suitably designed bracing may be used in lieu of sidewall rod bracing. Wind bracing in the roof and/or sidewall need not be furnished where it can be shown that the diaphragm strength of the roof and/or wall covering is adequate to resist the longitudinal wind forces. **All bracing shall be located within the outer and inner wall coverings and above eave height or ten feet (10') minimum (measured from building slab).**

8.0 Flange Bracing

The inside flange of all rigid frames shall be braced laterally so that the allowable compressive stresses are adequate for any combination of loading. **Bracing shall not be visible after roof and wall coverings are added.**

9.0 Sill Support

A continuous member shall be provided to which the base of the wall covering may be attached. This member shall be a 14-gauge galvanized angle secured to the concrete floor with adjustable galvanized clips anchored with hooked bolts.

10.0 Framed Openings

Structural framing members for all openings shall be adequate for the specified design loads. Framing members exposed to the weather shall be galvanized steel.

11.0 Painting

All primary structural framing members which are not galvanized shall be cleaned by rotary abrasive blasting to a "Commercial Blast" grade as specified by the Steel Structures Painting Council Specification SP-6-63. Following cleaning one shop coat of iron-oxide zinc chromate primer shall be applied. Exterior paint color shall be Parkline Desert Tan.

12.0 Roof and Wall Covering - General

- 12.1 Roof covering shall be 24-gauge aluminized steel utilizing standing seam panel design (corrugated design is not permitted).
- 12.2 Exterior wall covering shall be 24-gauge aluminized steel utilizing sculptured panel design, similar to Armco SteeloX, or approved equal.
- 12.3 The interior walls are to be installed by the Bidder and will consist of a flat surfaced metal wall liner - Parkline "Lock-In" or "Mark IV", "Armco Metaliner" or approved equal. The panels shall have integrally bonded insulation.
- 12.4 Where electrical panels are mounted to interior walls, electrical panels shall be mounted on 3/4" AC plywood per the "Wall Detail" shown on drawings.
- 12.5 The interior walls and ceiling shall be insulated to achieve a minimum thermal insulation factor of R19 for ceiling and R11 for walls.
- 12.6 In addition to the insulation integrally bonded to the wall panels, batt or blanket insulation may be placed between interior and exterior wall panels to achieve or exceed the stated R ratings.
- 12.7 If batt insulation is used it shall be covered with a 6 MIL polyethylene moisture barrier (Visqueen" or approved equal) over the total surface area of the insulation.
- 12.8 Fiberglass blanket insulation shall have an integrally bonded 4 MIL polyethylene moisture barrier, with blanket thickness as required to maintain or exceed stated R ratings.

13.0 Wall Partitions - General

- 13.1 Interior walls for partitioning of battery room area shall extend to full height of ceiling contour. The surface facing the control room shall be flat surfaced. The surface facing of the battery room may be corrugated steel similar to exterior panel design, or may be the same as control room interior.
- 13.2 Insulation for interior partition wall shall conform to section 14.0 requirements.

14.0 Ceiling - General

- 14.1 The Bidder shall install a finished ceiling of metal ceiling panels, **ten feet (10') above finished floor**. The ceiling shall include necessary insulation to achieve a minimum thermal rating of R19. Insulation may be batt, blanket, or combination and must include separate 6-mil polyethylene or integrally bonded 4-mil polyethylene moisture barrier between insulation and ceiling panels.

- 14.2 Alternately the batt, blanket, or combination insulation may be attached to the roof panels above and between ceiling purlins without a separate ceiling panel being installed. Batt insulation shall be covered with a 6 MIL polyethylene moisture barrier ("Visqueen" or approved equal). The fiberglass blanket insulation shall have integrally bonded 4 MIL polyethylene. This alternate method of installation shall meet or exceed a thermal rating of R19.
- 14.3 The Bidder shall also be responsible for the installation of suspension rods as indicated on the Drawings for the installation of cable tray systems to be installed by others. Suspension rods shall be one-half inch (1/2") stainless steel rod, continuously threaded, and shall be securely bolted to roof rake girts or purlin spacers to achieve the spacings and elevations required as indicated on the Drawings. The bottom elevation of all suspension rods shall be ninety inches (90") above finished floor. (See Section 7.0 for roof design loads.)

15.0 Fasteners

- 15.1 All self-tapping sheet metal screws shall conform to ANSI Standard B 18.6 and shall have Type "A" thread. Where required for weather tightness, screws shall be equipped with metal and neoprene washers.
- 15.2 Screws and washers shall be:
 - 15.2.1 Carbon steel plated with 0.0003" thick cadmium.
 - 15.2.2 Type (#410 or #305) stainless steel, plated with 0.00015" thick cadmium. Washers when required shall be aluminum.
- 15.3 After plating, all exposed fasteners and washers shall be coated with zinc phosphate and with one (1) prime coat and two (2) finish coats of baked silicone polyester; the color of the finish shall match the wall and/or roof panels.
- 15.4 Structural blind rivets shall be special three-sixteenths inch (3/16") diameter, and pull type fasteners having an aluminum body and an aluminum mandrel. When installed, the body shall deform in such a manner as to securely clinch the joined surfaces together.

16.0 Sealant and Closures

- 16.1 Sealant for sidelaps, endlaps, and flashings shall be a gray pressure-sensitive type, which shall be a blend of butyl and EPDM rubbers with not less than fifty percent (50%) butyl, and the suitable inert fillers and pigments. The material shall have a flash point of at least three hundred degrees Fahrenheit (300°F) and shall not flow at two hundred degrees Fahrenheit (200°F).
- 16.2 Side joints shall be sealed with a non-skinning liquid butyl sealant factory-applied in the female joint of the interior face.
- 16.3 Standard closures shall be closed cell foam EPDM closures matching the panel profile and installed along the eave, rake, and at accessories as required to provide a weather-tight building.

17.0 Installation of Roof and Wall Panels

- 17.1 Roof panels shall be continuous from ridge to eave. Where endlaps are required, they shall be a minimum of three inches (3") and shall occur at a roof purlin.
- 17.2 Wall panels shall be continuous from the column base to the roofline. Endwall panels shall be spliced at the eave height girt.
- 17.3 Before securing, all laps of roof panels shall be sealed with a continuous ribbon of tape sealer.

- 17.4 Roof and wall panels shall be secured to intermediate framing members with #14 sheet metal screws at a maximum spacing of twelve inches (12"). At endlaps, the maximum spacing of screws for roof panels shall be two (2) per foot.
- 17.5 Sidelaps of roof panels shall be stitched through the high rib with:
 - 17.5.1 #14 sheet metal screws at a maximum spacing of twelve inches (12"). Sidelaps of wall panels shall be stitched through the rib with #10 sheet metal screws at a maximum spacing of twenty inches (20").
 - 17.5.2 Structural blind rivets shall be special, three-sixteenths inch (3/16") diameter pull-type fasteners having an aluminum body with an aluminum mandrel. When installed, the body shall deform in such a manner as to securely clinch the joined surfaces together.

18.0 Installation of Roof Deck on Building

- 18.1 Where endlaps are required, they shall be a minimum of three inches (3").
- 18.2 Roof deck shall be secured to intermediate framing members with #14 sheet metal screws at a maximum spacing of twelve inches (12").

19.0 Flashing, Closures and Trim

- 19.1 Flashing and/or trim shall be furnished at the rake, corners, and eaves, at all framed openings, at all baseboard seams, and wherever necessary to provide weathertightness and a finished appearance to both interior and exterior.
- 19.2 Aluminized steel for flashing, metal closures, trim, and other miscellaneous uses shall conform to ASTM Specification A-653, 0.75 ounce coating class, and shall be 26-gauge or heavier.
- 19.3 A formed panel matching the slope and profile of adjoining roof panels shall be provided along the building ridge on (1/3 to 2:12) buildings.
- 19.4 Guttering, with appropriate downspouts, shall be installed by the Bidder the full length of the building on both eaves. Splashguards shall be provided for all downspouts.

20.0 Color Finish

- 20.1 Unless otherwise specified, the exposed surface of all flashing, trimming, gutters, downspouts, ventilators, louvers, and other exterior trim surfaces shall be color-coated. The metal surface shall be galvanized or aluminized prior to the application of the color coating. A twenty- (20) year warranty shall be provided on the finish.
- 20.2 Roof and wall finish shall be either:
 - 20.2.1 Aluminized steel with 0.75 ounce coating as determined by Mil-Spec. -4174-A Type II, or
 - 20.2.2 The galvanized coating shall be G90 per ASTM A-653.
- 20.3 Under either option, the finish shall carry a twenty- (20) year warranty.

21.0 Accessories

21.1 Hollow Metal Swing Doors

- 21.1.1 Exterior doors shall be 8 feet tall with no transoms.
- 21.1.2 Door leaves shall be one and three-fourths inch (1-3/4") thick, full flush, fabricated from 16-gauge, galvanized, mill-bonderized steel. The leaves shall have a one-piece, full-size, impregnated Kraft paper honeycomb core with a minimum crush strength of forty-five pounds per square inch (45 psi). Each door leaf shall swing from three (3) four and one-half inch by four and one-half inch (4-1/2" x 4-1/2") galvanized steel interlocking template butt hinges. All exterior

doors, single- and double-leaf, shall swing outward. Doors shall withstand 30/06 rifle fire at a distance of fifteen feet (15') per UL 752 Standards.

- 21.1.3 Doorframes shall be heavy-gauge galvanized steel and shall be equipped with an extruded aluminum doorstop having a continuous weatherstrip insert, which provides a positive weather seal.
- 21.1.4 The threshold shall be extruded aluminum and shall provide a positive weatherseal.
- 21.1.5 All exterior doors (both single and double leaf) shall be equipped with a standard knob and keeper, complete with exterior key lock and interior twist button. All exterior doors shall be master keyed alike to match Owner's keys on the outside with twelve (12) keys supplied to the Owner. Exterior doors shall be operated from the interior side by panic bar type operator.
- 21.1.6 Double-leaf doors shall be installed with the left-hand door equipped with interior head and foot latching bolts and accompanying zee astragal on door edge to affect this door inactive under normal conditions.
- 21.1.7 Each door shall be provided with a standard-duty hydraulic door closer with aluminum lacquer finish.
- 21.1.8 Door leaves and frames shall be bonderized and painted with one (1) coat of oven-dried neutral gray rust-inhibitive primer.
- 21.1.9 Door frames and leaves shall be field or factory-finished with an enamel paint to match other exterior trim.
- 21.1.10 Each door shall have a glass window in the upper half. The glass shall be tempered safety glass with wire reinforcement.
- 21.1.11 Each door shall be equipped with a magnetic door switch.

21.2 Climate Control and Ventilation

The Bidder shall furnish and install the following items for climate control of the building:

- 21.2.1 A wall-mount HVAC heat pump unit shall be installed in accordance with the enclosed Drawings. The unit shall be rated for use at 240-volts ac, with a minimal heating/cooling capacity to maintain temperature between 72 and 76 degrees Fahrenheit. HVAC units manufactured by Bard Manufacturing will not be accepted.
- 21.2.2 Bidder shall state the EER rating, manufacturer, BTU/H for heating/cooling, and model number of the unit to be furnished in the Bidder's Proposal.
- 21.2.3 A direct-driven wall-mount exhaust fan shall be mounted in the battery room as indicated on the enclosed Drawings. The fan shall be rated for use at 120-volts ac, having a minimum air flow capacity of six hundred and fifty (650)-cubic feet per minute. The fan shall be furnished thermostatically-controlled, complete with an automatic wall shutter for weather tight installation.
- 21.2.4 One additional wall louver 24" x 24" shall be located as shown on the Drawings. The louvers shall be motor-operated, and electrically operated by the exhaust fan thermostat to open when the exhaust fan is running. Louver shall operate on 120 Volts AC.

21.3 Ground Pads

The building manufacturer will provide NEMA 4-hole ground pads at all four corners to connect the building to the ground grid. All electrical equipment, panels, and cable tray shall be bonded to these pads with at least a 2/0 AWG copper conductor.

22.0 Electrical Materials, Equipment, and Installations (by Owner)

- 22.1 All construction shall be performed in a workmanlike manner and shall conform to the substation Drawings. The installations shall comply with the applicable rules of the latest editions of the National Electrical Code, and Interim Amendments, the National Electrical Safety Code, and the Uniform Building Code. Defective materials and equipment or materials and equipment damaged in the course of installation or test shall be replaced or repaired in a manner meeting the approval of the Owner and Engineer.
- 22.2 All equipment shall be properly and securely mounted and connected. Proper clearances shall be maintained. All bus and lead connections shall be electrically sound.
- 22.3 Install all ac and dc panelboards and all conduit runs to electrical devices, complete with appropriate wiring and cables. Terminate all conduits with appropriate bushings, weatherheads or elbows into equipment enclosures, and install wiring in the conduits as specified leaving enough slack cable inside for terminations. Terminate and hook-up all wiring internal to the control house.
- 22.4 Conduit
- 22.4.1 Exercise necessary precautions to prevent the accumulation of any foreign materials in the conduits during execution of the work. Conduits in which water or other foreign materials have been permitted to accumulate shall be cleaned thoroughly or the conduit run replaced where such accumulation cannot be removed by methods approved by the Engineer.
- 22.4.2 Surface mounted EMT conduit will be utilized for the wiring connections to all electrical devices.
- 22.4.3 Three (3) inch EMT conduits shall be installed from the top of the AC and DC panels to the cable tray above. The quantity of conduits shall be as many as will practically fit into the top of each panel.
- 22.4.4 Two (2) two-inch (2") EMT conduits shall be installed through the battery room partition wall for wiring of the batteries to the DC transfer switch.
- 22.5 Building Power Wiring and Control Cables
- 22.5.1 Building power wiring and building control cables for interconnection shall be sized and installed as shown on the Drawings. Conductors and insulation shall conform to the Underwriters' Laboratories, Inc. Standards and the wiring systems shall in general be based on conductors with code grade insulation for wet locations. All conductors shall be marked in accordance with the National Electrical Code, showing conductor size, insulation type, and voltage rating at prescribed intervals.
- 22.5.2 Building interior service and house wiring for devices, lighting, and outlets shall be 600-volt, Type THW, copper, and shall be solid in sizes #12 AWG through #10, and shall be stranded in sizes #8 AWG and larger.
- 22.6 Installation and Termination
- 22.6.1 Install all wiring where both ends of the wiring are terminated inside the building.
- 22.6.2 All control cables shall be clearly and permanently marked at each termination of the jacket in accordance with the cable numbers shown on the "Cable Schedule". Each conductor shall be clearly and permanently marked at each termination using Brady sleeve or equal heat shrinkable sleeve wire markers. Conductor markings shall be in accordance with the "Interconnection Diagrams". The cable jacket shall remain on the cable to a point within one foot (1') of where the first

conductor is to be terminated. At the termination of the jacket, the cable shall be securely sealed using plastic electrical tape.

All control wiring shall be continuous from terminal point to terminal point; no splices will be permitted. Terminations shall be made using insulated ring tongue compression connectors, AMP PIDG. All control wiring shall be neatly dressed and tied using plastic ty-wraps, in each device. The Owner shall furnish terminations, wire markers, and ty-wraps.

22.7 Lighting

Lighting for the control building shall include the furnishing and installation of two (2) systems: (1) a primary 120/240-volt ac system of primary fluorescent lights; (2) an emergency system of self-contained, battery operated spot flood/exit sign fixture(s). Materials shall include two (2) spare bulbs with each fixture; and two (2) exterior floods with motion detection and dawn to dusk photo cell operation.

22.7.1 Primary lighting shall be installed as per the Drawings using four tube fluorescent fixture 120 volt, 48" x 10" (with two (2) spare tubes for each fixture) similar to Grainger low-profile wrap-around (Item 3XY66, Page 633, Catalog 404.

22.7.2 Emergency light and exit sign (single-sided) over double doors. Unit to be 120 Vac input with charger and battery for emergency operation.

22.7.3 Exterior lighting shall consist of five (5) 300-watt quartz floods with motion detector and dawn to dusk photocell as shown on the drawings. All exterior floods shall utilize one switch for all on/off and normal motion/photocell operation.

22.8 Electrical Distribution Panels and Wiring

Provide and install two (2) complete wiring systems for all facilities associated with the building structure: (1) 120/240 volts ac, single-phase, and (2) 125 volts dc.

22.8.1 The 120/240 Vac wiring system will consist of

- a. One (1) manual transfer switch (200 amp, 2-pole, double-throw)
- b. Two (2) 120/240 VAC main breaker type AC distribution panels (225 amp, 30-circuit)
- c. One (1) 120/240 VAC main lug AC distribution panel (150 amp, 20-circuit)
- d. One (1) dry-type isolation transformer (7.5 kVA, 240:120/240-volts)

The wiring system will include circuits to all 120/240-volt AC devices and shall include interior distribution panels as the origin for all circuits. Mount the distribution panels and all outgoing branch circuits terminated within the building as indicated on the Drawings.

22.8.2 The 120/240 VAC system will be fed by a 200-ampere, two-pole, double-throw manual transfer switch for switching of the two (2) station service sources.

22.8.3 The two (2) main breaker type AC distribution panels shall be single-phase, three-wire, 120/240 volts, provided with 225-ampere main breaker and frame and the number of poles and single and double pole bolt-in branch circuit breakers indicated on the Drawings. Branch circuit breakers shall be sized and positioned in the panel as indicated on the Drawings. Breakers shall be quick-make and quick-break with position handle indicator on automatic trip and arc quench and shall conform to the requirements of Federal Specifications W-C-375A; cabinet shall be constructed of zinc-coated sheet steel and shall conform to the

Underwriters' Laboratories, Inc., Standard for Cabinets and Boxes. A directory holder with clear plastic cover and metal frame shall be mounted on the inside of the doors. Panelboards shall be rated at 22,000-amperes interrupting capacity and shall be **Cutler-Hammer Type Pow-R-Line 1, with Type FD main breaker and Type QBHW branch circuit breakers**. All outside receptacle circuits shall be equipped with ground fault interrupter (GFI).

Complete installation of the distribution panels includes grounding to the system ground bus.

The AC power panels shall be installed in a completely enclosed, wall-mounted sheet steel cabinet with necessary interconnecting bus and conduit. All fastenings between structural members shall be bolted, not welded. Knockouts shall be provided in the top and bottom for incoming services and branch circuits.

After fabrication, enclosure shall be rustproofed and finished with baked-on enamel, light gray in color, ANSI 61.

- 22.8.4 The main lug AC distribution panel shall be single-phase, three-wire, 120/240 volts, provided with 150-ampere main lugs and frame and the number of poles and single and double pole bolt-in branch circuit breakers indicated on the Drawings. Breakers shall be quick-make and quick-break with position handle indicator on automatic trip and arc quench and shall conform to the requirements of Federal Specifications W-C-375A; cabinet shall be constructed of zinc-coated sheet steel and shall conform to the Underwriters' Laboratories, Inc., Standard for Cabinets and Boxes. A directory holder with clear plastic cover and metal frame shall be mounted on the inside of the doors. Panelboard shall be rated at 22,000-amperes interrupting capacity and shall be **Cutler-Hammer Type Pow-R-Line 1, with Type QBHW branch circuit breakers**.

Complete installation of distribution panel includes grounding to the system ground bus.

The AC power panel shall be installed in a completely enclosed, wall-mounted sheet steel cabinet with necessary interconnecting bus and conduit. All fastenings between structural members shall be bolted, not welded. Knockouts shall be provided in the top and bottom for incoming services and branch circuits.

After fabrication, enclosure shall be rustproofed and finished with baked-on enamel, light gray in color, ANSI 61.

- 22.8.5 Furnish and install a 10 kVA dry-type transformer where shown on the Drawings. This transformer shall be a two-winding unit, single-phase, of the shielded isolation design. The primary winding shall be 240 volts and the secondary winding 120/240 volts. The unit shall be constructed in accordance with NEMA, ANSI, ASA, and IEEE standards and be UL-listed for the application. The transformer shall be of totally enclosed, non-ventilated design, with low sound level. The unit shall be Square D Type 5S1F or equal.

The primary of the transformer shall be supplied by the 60-ampere feeder out of the "house equipment" AC panelboard. The secondary of the transformer shall supply AC yard lighting panel, from which yard lighting branch circuits will be supplied.

- 22.8.6 The 125-volt dc system will consist of
- a. Two (2) 125 VDC batteries (60-cell, 200 AH, flooded lead acid)
 - b. Two (2) battery racks
 - c. Two (2) battery chargers (125 VDC, 16 amp).

- 22.8.7 One (1) 125 VDC automatic transfer switch and one (1) 125 VDC panelboard (as described below) will be furnished and installed.
- 22.8.8 The DC power panel is required for installation in the control house to provide protection for the various DC circuits to the equipment. The DC power panel shall be rated 250 Volts DC, with a 225-ampere main breaker and frame and shall be provided with the number of double-pole, bolt-in branch circuit breakers indicated on the Drawings. Branch circuit breakers shall be sized and positioned in the panel as indicated on the Drawings.

Circuit breakers shall conform to Federal Specifications W-C-375a.

The enclosure shall be constructed of Code-gauge galvanized steel with knockouts conforming to the requirements of the Underwriters' Laboratories, Inc., Standard for Cabinets and Boxes.

Trim and door shall have suitable primer coat and a finish coat of light gray color, ANSI 61. Panelboard cabinet shall be provided with not less than six-inch wiring gutters at the sides, top and bottom. Trim shall be fitted with hinged door having combination lock and latch. A directory holder with clear plastic or glass plate and metal frame shall be mounted on the inside of each door. A neatly typed directory properly identifying each circuit shall be mounted in the frame.

The panelboard shall be rated 250 VDC at 10,000-amperes interrupting capacity and shall be **Cutler-Hammer Type Pow-R-Line 3a with Type FDB main breaker and Type EHD branch circuit breakers.**

- 22.8.9 All interior wiring shall be installed in electrical metallic tubing (EMT) as specified on the Drawings and shall utilize exposed surface-mounted construction, including conduit, receptacle boxes, junction boxes, and lighting fixtures. Conduit runs shall not be allowed behind walls or under the floor.

22.9 Cable Tray System

A cable tray system shall be installed in the control house. The cable tray shall be twenty-four inches (24") wide and four-inches (4") high, with a three-inch (3") minimum loading depth and shall be of the ladder type construction, manufactured of extruded structural grade aluminum. Tray shall conform to NEMA 8C Classification, (maximum of eight feet (8') support span length and 100 pounds per foot maximum loading). Ladder type construction shall utilize nine-inch (9") rung spacing. Bends shall use twelve-inch (12") radius vertical and twelve-inch (12") radius horizontal ninety degree (90°) bends. The cable tray system shall be as manufactured by Husky-Burndy, B-Line Systems, or Square D.

22.10 Battery Room Heater

The battery room will be equipped with a floor-mounted 1500 watt, 120/240 volt ac strip heater for the battery room, complete with an external wall-mounted thermostat. Unit will be supplied with heavy-duty mounting frame and stainless steel protective grill over heater elements. Thermostat range shall include "On" at 55°F and "Off" at 85°F.

22.11 Hydrogen Detection System

A hydrogen gas detection system shall be provided. The sensor shall be appropriately mounted in the battery area(s) so as to monitor hydrogen gas concentration at ceiling level and with operator controls and indication mounted in the control room. All components shall remain accessible for testing maintenance. The detector shall be powered from 120 Volts AC per station drawings, having a relay contact that closes when

the hydrogen gas concentration reaches a level of 1% and a second relay contact that closes when the hydrogen gas concentration reaches 2%. The 1% hydrogen gas concentration output shall be wired to an automatically controlled exhaust system or HVAC fan as applicable. The 2% hydrogen gas concentration output shall be wired for connection to the Owner's SCADA system for alarming. Relay contacts shall be Form-C contacts capable of 10A, 120 Vac or 125 Vdc service. The detection system shall be a model SBS-H2 as manufactured by Storage Battery Systems, LLC or acceptable equal.

23.0 Permits and Clean-up

23.1 Permits, Fees, Etc.

The Bidder shall be responsible for obtaining and paying for all permits, licenses, certificates, inspections, etc., required, both permanent and temporary.

23.2 Cleaning Up

The Bidder shall be individually responsible for cleaning smears, labels, spots, and discoloration from each piece of equipment. All building materials shall be left clean and in new condition.

Where the final substation grade is disturbed during construction, the Bidder will add back a 6" layer of stone (3" of crusher Crusher Run, then 3" washed stone) to achieve final substation grade.

24.0 Site Work

Site preparation is by the Contractor. The Owner will clear any loose items from the area of the installation and will provide access to the site.

25.0 Warranties

The Bidder shall furnish written warranties on the metal building itself, including color finishes and individual manufacturer's warranties on each piece of heating, lighting, electrical, or plumbing equipment furnished and installed.

26.0 Bidder/Owner Responsibilities

The following is a summary of materials and work tasks pertaining to this building, itemized by the party who is solely responsible for the completion of each item (i.e., the Bidder or the Owner).

26.1 Bidder Responsibilities

The Bidder shall furnish material for and completely install the following items in accordance with the Specifications:

26.1.1 A complete metal building of stated size and dimension including: structural framing, wind bracing (if necessary), exterior wall and roof panels, insulation with moisture barriers, insulated metal doors, and all necessary fasteners, trim, glazing, flashing, sealants, paints, hardware, and electrical panels.

26.1.2 Wall-mounted HVAC units.

26.1.3 Interior walls and partitions.

26.1.4 All necessary permits, fees, inspections, etc., for proper construction.

26.1.5 Clean-up and touch-up of any discolored or damaged material.

26.1.6 Building manufacturing Drawings and equipment bill of material.

26.1.7 Heating, ventilation, air conditioning and structural calculations.

26.1.8 Battery room exhaust fan and louvered vent.

26.2 Owner Responsibilities

The Owner shall be responsible for furnishing materials and/or the complete installation of the following work tasks (in accordance with the Specifications):

- 26.2.1 Site preparation.
- 26.2.2 Concrete foundation for the metal building including: excavation, backfilling, termite inspections, concrete reinforcing materials, forming materials, final grade of adjacent soil and clean up.
- 26.2.3 Battery racks, batteries and chargers, SCADA RTU, CRU, radio, and protective relaying panels as shown on Control House Plan will be provided.
- 26.2.4 Safety equipment and accessories shall include one (1) 10-man first aid kit, one (1) 10 lb. ABC dry chemical fire extinguisher, one (1) 10 lb. CO2 fire extinguisher, and one (1) battery safety kit, including a self-contained eye-wash station.
- 26.2.5 Battery room hydrogen detection system and thermostat controlled strip heater for battery room.
- 26.2.6 Electrical wiring for outlets, switches, ventilation, HVAC unit, light fixtures, ac panelboard, manual transfer switch, and dc panelboard.
- 26.2.7 Cable tray system.
- 26.2.8 Grounding of building steel to the ground grid.
- 26.2.9 Install AC & DC transfer switches, AC & DC panels, and lighting transformers.
- 26.2.10 Install battery racks, batteries and chargers, SCADA RTU, CRU, radio, and protective relaying panels.

**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**PREFABRICATED METAL RELAY CONTROL HOUSE FOR
GREENVILLE SOUTH 230 KV POD NO. 3**

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|-------------------------|
| LIST OF DRAWINGS |
|-------------------------|

The work shall conform to the following Booth and Associates, LLC. Drawings, all of which form a part of these Specifications. The Bidder is responsible for contacting the Engineer if any drawings not indicated to be furnished at a later date are missing from their bid package. If the Bidder does not contact the Engineer regarding any drawings, their bid will be considered based on all Drawings and Specifications, as issued for bids.

| Drawing No. 14022 | Title |
|------------------------------|---|
| CH1, CH2, CH3 | Control House Sections and Details |
| E111 | 125 VDC System Interconnection Diagram |
| E112 | 120/240 VAC System Interconnection Diagram |
| E119 | Yard Lights, Receptacles, Sump Pump Interconnection Diagram |