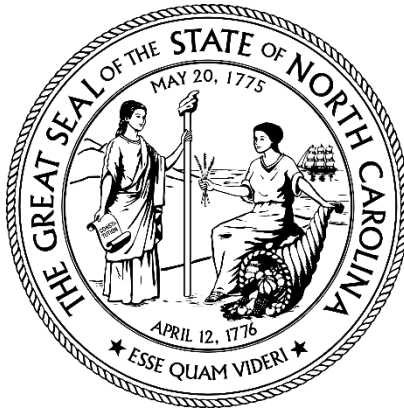




## **STATE OF NORTH CAROLINA**

**Fayetteville State University**

**Invitation for Bid #: 58-IFB2720001**

**Campuswide Utility Infrastructure Package**

**Date Issued: August 9, 2026**

**Bid Opening Date: September 10, 2026**

**At 11:30 AM ET**

**Direct all inquiries concerning this IFB to:**

**Victoria McAllister**

**Chief Procurement Officer**

**Email: [vmcallister@uncfsu.edu](mailto:vmcallister@uncfsu.edu)**

**Phone: 910-672-1082**



## STATE OF NORTH CAROLINA

### Invitation for Bid #

**58-IFB2720001**

For internal State agency processing, including tabulation of bids, provide your company's eVP (Electronic Vendor Portal) Number. Pursuant to G.S. 132-1.10(b) this identification number shall not be released to the public. **This page will be removed and shredded, or otherwise kept confidential**, before the procurement file is made available for public inspection.

**This page shall be filled out and returned with your bid.  
Failure to do so shall be sufficient cause to reject your bid.**

\_\_\_\_\_  
Vendor Name

\_\_\_\_\_  
Vendor eVP #

Note: For a contract to be awarded to you, your company (you) must be a North Carolina registered Vendor in good standing. You must enter the Vendor number assigned through eVP (Electronic Vendor Portal). If you do not have a Vendor number, register at <https://evp.nc.gov/SignIn>

***Electronic responses ONLY will be accepted for this solicitation via Bonfire.***

**STATE OF NORTH CAROLINA**  
**Fayetteville State University**

|                                                                                                                         |                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Refer <b><u>ALL</u></b> Inquiries regarding this IFB to:<br><b>Victoria McAllister</b><br><b>vmcallister@uncfsu.edu</b> | Invitation for Bids # <b>58-IFB2720001</b>                                                                                                              |
|                                                                                                                         | <b>Bids will be publicly opened virtual via MS Teams: September 10, 2026 at 11:30 A.M. E.T. Please see section 2.4 IFB Schedule for meeting details</b> |
| Using Agency: <b>Fayetteville State University</b>                                                                      | <b>Commodity No. and Description: 39122200 - Electrical switches and accessories</b>                                                                    |
| Requisition No.: <b>TBD</b>                                                                                             |                                                                                                                                                         |

**EXECUTION**

In compliance with this Invitation for Bids (IFB), and subject to all the conditions herein, the undersigned Vendor offers and agrees to furnish and deliver any or all items upon which prices are bid, at the prices set opposite each item within the time specified herein.

By executing this bid, the undersigned Vendor understands that false certification is a Class I felony and certifies that:

- this bid is submitted competitively and without collusion (G.S. 143-54),
- that none of its officers, directors, or owners of an unincorporated business entity has been convicted of any violations of Chapter 78A of the General Statutes, the Securities Act of 1933, or the Securities Exchange Act of 1934 (G.S. 143-59.2), and
- it is not an ineligible Vendor as set forth in G.S. 143-59.1.

Furthermore, by executing this bid, the undersigned certifies to the best of Vendor's knowledge and belief, that:

- it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal or State department or agency.

As required by G.S. 143-48.5, the undersigned Vendor certifies that it, and each of its sub-Contractors for any Contract awarded as a result of this IFB, complies with the requirements of Article 2 of Chapter 64 of the NC General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

As required by Executive Order 24 (2017), the undersigned Vendor certifies will comply with all Federal and State requirements concerning fair employment and that it does not and will not discriminate, harass, or retaliate against any employee in connection with performance of any Contract arising from this solicitation.

G.S. 133-32 and Executive Order 24 (2009) prohibit the offer to, or acceptance by, any State Employee associated with the preparing plans, specifications, estimates for public Contract; or awarding or administering public Contracts; or inspecting or supervising delivery of the public Contract of any gift from anyone with a Contract with the State, or from any person seeking to do business with the State. By execution of this bid response to the IFB, the undersigned certifies, for Vendor's entire organization and its employees or agents, that Vendor are not aware that any such gift has been offered, accepted, or promised by any employees or agents of Vendor's organization.

By executing this bid, Vendor certifies that it has read and agreed to the **INSTRUCTION TO VENDORS** and the **NORTH CAROLINA GENERAL TERMS AND CONDITIONS incorporated herein**. These documents can be accessed from the ATTACHMENTS page within this document.

**Failure to execute/sign bid prior to submittal may render bid invalid and it MAY BE REJECTED. Late bids cannot be accepted.**

|                                                                                                     |                   |                    |
|-----------------------------------------------------------------------------------------------------|-------------------|--------------------|
| COMPLETE/FORMAL NAME OF VENDOR:                                                                     |                   |                    |
| STREET ADDRESS:                                                                                     | P.O. BOX:         | ZIP:               |
| CITY & STATE & ZIP:                                                                                 | TELEPHONE NUMBER: | TOLL FREE TEL. NO: |
| PRINCIPAL PLACE OF BUSINESS ADDRESS IF DIFFERENT FROM ABOVE (SEE INSTRUCTIONS TO VENDORS ITEM #21): |                   |                    |
| PRINT NAME & TITLE OF PERSON SIGNING ON BEHALF OF VENDOR:                                           |                   |                    |
| VENDOR'S AUTHORIZED SIGNATURE:                                                                      | DATE:             | E-MAIL:            |

Bid Number: 58-IFB2720001

Vendor: \_\_\_\_\_

**VALIDITY PERIOD**

Offer shall be valid for at least sixty (60) days from date of bid opening, unless otherwise stated here: \_\_\_\_\_ days, or if extended by mutual agreement of the parties. Any withdrawal of this offer shall be made in writing, effective upon receipt by the agency issuing this IFB.

**BID ACCEPTANCE**

If your bid is accepted, all provisions of this IFB, along with the written results of any negotiations, shall constitute the written agreement between the parties ("Contract"). The NORTH CAROLINA GENERAL TERMS AND CONDITIONS are incorporated herein and shall apply. Depending upon the Goods or Services being offered, other terms and conditions may apply, as mutually agreed.

**FOR STATE USE ONLY:** Offer accepted and Contract awarded this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, as indicated on the attached certification, by \_\_\_\_\_

(Authorized Representative of Fayetteville State University)

|             |                                                                      |           |
|-------------|----------------------------------------------------------------------|-----------|
| <b>1.0</b>  | <b>PURPOSE AND BACKGROUND .....</b>                                  | <b>5</b>  |
| 1.1         | CONTRACT TERM.....                                                   | 5         |
| <b>2.0</b>  | <b>GENERAL INFORMATION .....</b>                                     | <b>5</b>  |
| 2.1         | INVITATION FOR BID DOCUMENT .....                                    | 5         |
| 2.2         | E-PROCUREMENT FEE .....                                              | 5         |
| 2.3         | NOTICE TO VENDORS REGARDING IFB TERMS AND CONDITIONS .....           | 5         |
| 2.4         | IFB SCHEDULE .....                                                   | 6         |
| 2.6         | BID QUESTIONS .....                                                  | 6         |
| 2.7         | BID SUBMITTAL .....                                                  | 7         |
| 2.8         | BID CONTENTS.....                                                    | 7         |
| 2.9         | ALTERNATE BIDS .....                                                 | 8         |
| 2.10        | DEFINITIONS, ACRONYMS, AND ABBREVIATIONS.....                        | 8         |
| <b>3.0</b>  | <b>METHOD OF AWARD AND BID EVALUATION PROCESS.....</b>               | <b>8</b>  |
| 3.1         | METHOD OF AWARD.....                                                 | 8         |
| 3.2         | CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING EVALUATION..... | 8         |
| 3.3         | BID EVALUATION PROCESS.....                                          | 9         |
| 3.4         | PERFORMANCE OUTSIDE THE UNITED STATES .....                          | 9         |
| 3.5         | INTERPRETATION OF TERMS AND PHRASES .....                            | 10        |
| <b>4.0</b>  | <b>REQUIREMENTS.....</b>                                             | <b>10</b> |
| 4.1         | PRICING .....                                                        | 10        |
| 4.2         | ESTIMATED QUANTITIES.....                                            | 10        |
| 4.3         | PRODUCT IDENTIFICATION.....                                          | 10        |
| 4.4         | TRANSPORTATION AND IDENTIFICATION .....                              | 11        |
| 4.5         | DELIVERY.....                                                        | 11        |
| 4.6         | AUTHORIZED RESELLER.....                                             | 11        |
| 4.7         | WARRANTY .....                                                       | 11        |
| 4.9         | DESCRIPTIVE LITERATURE.....                                          | 12        |
| 4.10        | HUB PARTICIPATION.....                                               | 12        |
| 4.11        | REFERENCES .....                                                     | 12        |
| 4.12        | VENDOR'S REPRESENTATIONS .....                                       | 12        |
| 4.13        | FINANCIAL STABILITY .....                                            | 12        |
| 4.14        | AGENCY INSURANCE REQUIREMENTS MODIFICATION .....                     | 13        |
| <b>4.15</b> | <b>LOBBYING ACTIVITVY CERTIFICATION FOR FEDERAL GRANTS .....</b>     | <b>13</b> |
| <b>4.16</b> | <b>SUBCONTRACTORS .....</b>                                          | <b>13</b> |
| <b>4.17</b> | <b>SECRETARY OF STATE REGISTRATION .....</b>                         | <b>13</b> |
| 4.18        | 13                                                                   |           |
| <b>5.0</b>  | <b>PRODUCT SPECIFICATIONS .....</b>                                  | <b>14</b> |
| 5.1         | SPECIFICATIONS.....                                                  | 14        |
| 5.2         | CERTIFICATION AND SAFETY LABELS.....                                 | 14        |
| 5.3         | DEVIATIONS.....                                                      | 14        |
| <b>6.0</b>  | <b>CONTRACT ADMINISTRATION.....</b>                                  | <b>15</b> |
| 6.1         | CONTRACT MANAGER AND CUSTOMER SERVICE.....                           | 15        |

|            |                                                                                                                                         |           |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 6.3        | CONTINUOUS IMPROVEMENT .....                                                                                                            | 15        |
| 6.4        | ACCEPTANCE OF WORK .....                                                                                                                | 15        |
| 6.6        | INVOICES .....                                                                                                                          | 16        |
| 6.7        | DISPUTE RESOLUTION .....                                                                                                                | 16        |
| 6.8        | PRODUCT RECALL .....                                                                                                                    | 16        |
| 6.9        | PRICE ADJUSTMENTS .....                                                                                                                 | 16        |
| 6.10       | CONTRACT CHANGES.....                                                                                                                   | 16        |
| <b>7.0</b> | <b>ATTACHMENTS .....</b>                                                                                                                | <b>18</b> |
|            | <b>ATTACHMENT A: PRICING.....</b>                                                                                                       | <b>18</b> |
|            | <b>ATTACHMENT B: INSTRUCTIONS TO VENDORS .....</b>                                                                                      | <b>18</b> |
|            | <b>ATTACHMENT C: NORTH CAROLINA GENERAL TERMS &amp; CONDITIONS .....</b>                                                                | <b>18</b> |
|            | <b>E: CUSTOMER REFERENCE FORM.....</b>                                                                                                  | <b>18</b> |
|            | <b>ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR .....</b>                                                                       | <b>18</b> |
|            | <b>ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION .....</b>                                                                         | <b>18</b> |
|            | <b>ATTACHMENT H: VENDOR REQUEST FOR EO50 PRICE-MATCHING.....</b>                                                                        | <b>19</b> |
|            | <b>ATTACHMENT I: CAMPUSWIDE UTILITY INFRASTRUCTURE PACKAGE B – SWITCH EQUIPMENT<br/>PREPURCHASE PACKAGE PROJECT SPECIFICATIONS.....</b> | <b>19</b> |
|            | <b>LOBBYING ACTIVITY CERTIFICATION FOR FEDERAL GRANTS.....</b>                                                                          | <b>19</b> |

## 1.0 PURPOSE AND BACKGROUND

---

On behalf of Fayetteville State University's Facilities Management Department, the Office of Procurement wishes to solicit bids for acquiring campus wide utility infrastructure components as described herein.

The intent of this solicitation is to award an Agency Specific Contract.

To comply with Governor Cooper's Executive Order 80 (October 2018), North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy, the contract resulting from this solicitation intends to provide sustainability features in accordance with industry standards.

### 1.1 CONTRACT TERM

The Contract shall have an initial term of one (1) year, beginning on the date of final Contract execution (the "Effective Date") or whichever is later.

Bids shall be submitted in accordance with the terms and conditions of this IFB and any addenda issued hereto.

## 2.0 GENERAL INFORMATION

---

### 2.1 INVITATION FOR BID DOCUMENT

The IFB is comprised of the base IFB document, any attachments, and any addenda released before Contract award, which are incorporated herein by reference.

### 2.2 E-PROCUREMENT FEE

**ATTENTION: The E-Procurement fee DOES NOT apply to this solicitation. See paragraph entitled ELECTRONIC PROCUREMENT of the North Carolina General Terms and Conditions.**

General information on the E-Procurement Services can be found at: <http://eprocurement.nc.gov/>.

### 2.3 NOTICE TO VENDORS REGARDING IFB TERMS AND CONDITIONS

It shall be the Vendor's responsibility to read the Instructions to Vendors, the North Carolina General Terms and Conditions, all relevant exhibits and attachments, and any other components made a part of this IFB and comply with all requirements and specifications herein. Vendors also are responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this IFB.

If Vendors have questions, issues, or exceptions regarding any component within this IFB, those must be submitted as questions in accordance with the instructions in the BID QUESTIONS Section. If the State determines that any changes will be made as a result of the questions asked, then such decisions will be communicated in the form of an IFB addendum. The State may also elect to leave open the possibility for later negotiation of specific provisions of the Contract that have been addressed during the question-and-answer period, prior to contract award.

Other than through this process or negotiation under 01 NCAC 05B.0503, the State rejects and will not be required to evaluate or consider any additional or modified terms and conditions submitted with Vendor's bid. This applies to any language appearing in or attached to the document as part of the Vendor's bid that purports to vary any terms and conditions or Vendors' instructions herein or to render the bid non-binding or subject to further negotiation. Vendor's bid shall constitute a firm offer that shall be held open for the period required herein ("Validity Period" above).

**The State may exercise its discretion to consider Vendor proposed modifications. By execution and delivery of this IFB response, the Vendor agrees that any additional or modified terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect, and will be disregarded unless expressly agreed upon through negotiations and incorporated by way of a Best and Final Offer (BAFO). Noncompliance with, or any attempt to alter or delete, this paragraph shall constitute sufficient grounds to reject Vendor's bid as nonresponsive.**

## 2.4 IFB SCHEDULE

The table below shows the *intended* schedule for this IFB. The State will make every effort to adhere to this schedule.

| Event                          | Responsibility | Date and Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issue IFB                      | State          | August 9, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Submit Written Questions       | Vendor         | August 17, 2026 by 11:59 P.M. E.T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Provide Responses to Questions | State          | August 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Submit Bids                    | Vendor         | September 10, 2026 at 11:00 A.M.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Virtual Public Bid Opening     | State          | <p>September 10, 2026 at 11:30 A.M. via MS Teams</p> <p><b>MS Teams Link</b></p> <hr/> <p><b>Microsoft Teams meeting</b><br/> <b>Join:</b><br/> <a href="https://teams.microsoft.com/join/220481854267443?p=w2XtzxuQ9d68YZY9Pw">https://teams.microsoft.com/join/220481854267443?p=w2XtzxuQ9d68YZY9Pw</a><br/> Meeting ID: 220 481 854 267 443<br/> Passcode: j48eA6j5</p> <p><a href="#">Need help?</a>   <a href="#">System reference</a><br/> <b>Dial in by phone</b><br/> <a href="#">+1 910-491-9484,,110292538#</a> United States, Fayetteville<br/> <a href="#">Find a local number</a><br/> Phone conference ID: 110 292 538#<br/> <b>Join on a video conferencing device</b><br/> Tenant key: uncfsu@m.webex.com<br/> Video ID: 114 458 551 1<br/> <a href="#">More info</a><br/> For organizers: <a href="#">Meeting options</a>   <a href="#">Reset dial-in PIN</a></p> <p> <b>FAYETTEVILLE</b><br/> STATE UNIVERSITY™</p> <p><a href="#">Org help</a>   <a href="#">Privacy and security</a></p> |
| Contract Award                 | State          | September 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Contract Effective Date        | State          | September 21, 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## 2.6 BID QUESTIONS

Upon review of the IFB documents, Vendors may have questions to clarify or interpret the IFB in order to submit the best bid possible. To accommodate the Bid Questions process, Vendors shall submit any such questions by the “Submit Written Questions” date and time provided in the IFB SCHEDULE Section above, unless modified by Addendum.

Written questions shall be e-mailed to [vmcallister@uncfsu.edu](mailto:vmcallister@uncfsu.edu) by the date and time specified above. Vendors will enter “**IFB # 58-IFB2720001 Questions**” as the subject for the email. Question submittals will include a reference to the applicable IFB section and be submitted in a format shown below:

| Reference                | Vendor Question      |
|--------------------------|----------------------|
| IFB Section, Page Number | Vendor question ...? |

Questions received prior to the submission deadline date, the State’s response, and any additional terms deemed necessary by the State will be posted in the form of an addendum to *the electronic Vendor Portal (eVP)*, <https://evp.nc.gov>, and shall become an Addendum to this IFB. No information, instruction or advice provided orally or informally by any State personnel, whether made in response to a question or otherwise in connection with this IFB, shall be considered authoritative or binding. Vendors shall rely *only* on written material contained in an Addendum to this IFB.



## 2.7 BID SUBMITTAL

**IMPORTANT NOTE: This is an absolute requirement.** Vendor shall bear the risk of late submission due to unintended or unanticipated delay. It is the Vendor's sole responsibility to ensure its bid has been received as described in this IFB by the specified time and date of opening. The date and time of receipt will be marked on each bid when received. Any bid or portion thereof received after the bid submission deadline will be rejected.

### BONFIRE

All proposal responses shall be submitted electronically via the University's Bonfire Portal. See Link Below:

**<https://uncfsu.bonfirehub.com/portal/?tab=openOpportunities>**

Failure to submit a bid in strict accordance with these instructions shall constitute sufficient cause to reject a Vendor's bid(s). Vendors are strongly encouraged to allow sufficient time to upload bids.

Critical updated information may be included in Addenda to this IFB. It is important that all Vendors responding on this IFB periodically check the State's eVP or Bonfire website for any Addenda that may be issued prior to the bid opening date. All Vendors shall be deemed to have read and understood all information in this IFB and all Addenda thereto.

## 2.8 BID CONTENTS

Vendors shall populate all attachments of this IFB that require the Vendor to provide information and include an authorized signature where requested. Failure to provide all required items, or Vendor's submission of incomplete items, may result in the State rejecting Vendor's bid, in the State's sole discretion

Vendor IFB responses shall include the following items and attachments, which shall be arranged in the following order:

- a) Cover Letter, which must contain all of the following: (i) a statement that confirms that the Vendor has read the IFB in its entirety, including all links, and all Addenda released in conjunction with the IFB; (ii) a statement that the Vendor agrees to perform in accordance with the scope of work, requirements, and specifications contained herein; and (iii) Vendor's agreement to comply with all instructions, terms and conditions, and attachments.
- b) Title Page: Include the company name, address, phone number and authorized representative along with the Bid Number.
- c) Completed and signed version of EXECUTION PAGES, along with the body of the IFB.
- d) Signed receipt pages of any addenda released in conjunction with this IFB, if required to be returned.
- e) Vendor's Response (***See requested information in Section 4.0 & Response in Section 5.0. All support should be uploaded in the Vendor's Response Section within Bonfire***)
- f) Completed version of ATTACHMENT A: PRICING
- g) Completed version of ATTACHMENT E: CUSTOMER REFERENCE FORM
- h) Completed version of ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR
- i) Completed and signed version of ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION
- j) Completed and signed version of ATTACHMENT H: VENDOR REQUEST FOR EO50 PRICE-MATCHING, if applicable
- k) Completed and signed version of CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS and OMB STANDARD FORM LLL

## 2.9 ALTERNATE BIDS

Unless provided otherwise in this IFB, Vendor may submit alternate bids for comparable Goods, various methods or levels of Service(s), or that propose different options. Alternate bids must specifically identify the IFB requirements and advantage(s) addressed by the alternate bid. Any alternate bid, in addition to the marking described above, must be clearly marked with the legend: "58-IFB2720001-Alternate Bid # \_\_\_\_ [for 'name of Vendor']". Each bid must be for a specific set of Goods and Services and must include specific pricing. If a Vendor chooses to respond with various offerings, each must be offered with a separate price and be contained in a separate bid. Each bid must be complete and independent of other bids offered.

## 2.10 DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

Relevant definitions for this IFB are provided in 01 NCAC 05A .0112 and in the Instructions to Vendors referenced below which are incorporated herein by this reference.

## 3.0 METHOD OF AWARD AND BID EVALUATION PROCESS

---

### 3.1 METHOD OF AWARD

North Carolina G.S. 143-52 provides a general list of criteria the State shall use to award contracts, as supplemented by the additional criteria herein. The Goods or Services being procured shall dictate the application and order of criteria; however, all award decisions shall be in the State's best interest.

All responsive bids will be reviewed, and award(s) will be based on the responsive bid(s) offering the lowest price that meets the specifications to include any required verifications set out herein, such as but not limited to past performance, references, and financial documents.

While the intent of this IFB is to award a Contract(s) to a single Vendor for all line items the State reserves the right to make separate awards to different Vendors for one or more line items, to not award one or more line items or to cancel this IFB in its entirety without awarding a Contract, if it is considered to be most advantageous to the State to do so.

If a Vendor selected for award is determined by the State to be a non-resident of North Carolina, all responsive bids will be reviewed to determine if any of them were submitted by a North Carolina resident Vendor who requested an opportunity to match the price of the winning bid, pursuant to Executive Order #50 and G.S. 143-59 (for more information, please refer to ATTACHMENT H: VENDOR REQUEST FOR EXECUTIVE ORDER #50 PRICE MATCHING. If such bid(s) are identified, the State will then determine whether any such bid falls within the price-match range, and, if so, make a Contract award in accordance with the process that implements G.S. 143-59 and Executive Order #50.

The State reserves the right to waive any minor informality or technicality in bids received.

### 3.2 CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING EVALUATION

While this IFB is under evaluation, the responding Vendor, including any subcontractors and suppliers, is prohibited from engaging in conversations intended to influence the outcome of the evaluation. See Paragraph 29 of the Instructions To Vendors entitled COMMUNICATIONS BY VENDORS.

Each Vendor submitting a bid to this IFB, including its employees, agents, subcontractors, suppliers, subsidiaries and affiliates, is prohibited from having any communications with any person inside or outside the using agency; issuing agency; other government agency office or body (including the procurement lead named above, any department secretary, agency head, members of the General Assembly and Governor's office); or private entity, if the communication refers to the content of Vendor's bid or qualifications, the content of another Vendor's proposal, another Vendor's qualifications or ability to perform a resulting contract, and/or the transmittal of any other communication of information that could be reasonably considered to have the effect of directly or indirectly influencing the evaluation of proposals, the award of a contract, or both.

Any Vendor not in compliance with this provision shall be disqualified from evaluation and award. A Vendor's proposal may be disqualified if its subcontractor and/or supplier engage in any of the foregoing communications during the time that the

procurement is active (*i.e.*, the issuance date of the procurement until the date of contract award or cancellation of the procurement). Only those discussions, communications or transmittals of information authorized or initiated by the issuing agency for this IFB, or inquiries directed to the procurement lead named in this IFB regarding requirements of the IFB (prior to proposal submission) or the status of the award (after submission) are excepted from this provision.

### 3.3 BID EVALUATION PROCESS

Only responsive submissions will be evaluated.

#### **The State will conduct an evaluation of responsive Bids, as follows:**

Bids will be received according to the method stated in the Bid Submittal section above.

All bids must be received by the issuing agency not later than the date and time specified in the IFB SCHEDULE Section above, unless modified by Addendum. Vendors are cautioned that this is a request for offers, not an offer or request to contract, and the State reserves the unqualified right to reject any and all offers at any time if such rejection is deemed to be in the best interest of the State.

At the date and time provided in the IFB SCHEDULE Section above, unless modified by Addendum, the bids from each responding Vendor will be opened publicly and all offers (except those that have been previously withdrawn, or voided bids) will be tabulated. The tabulation shall be made public at the time it is created. When negotiations after receipt of bids are authorized pursuant to G.S. 143-49 and 01 NCAC 05B.0503, only the names of offerors and the Goods and Services offered shall be tabulated at the time of opening. If negotiation is anticipated, cost and price shall become available for public inspection at the time of the award. Interested parties are cautioned that these costs and their components are subject to further evaluation for completeness and correctness and therefore may not be an exact indicator of a Vendor's pricing position.

At their option, the evaluators may request oral presentations or discussions with any or all Vendors for clarification or to amplify the materials presented in any part of the bid. Vendors are cautioned, however, that the evaluators are not required to request presentations or other clarification—and often do not. Therefore, all bids should be complete and reflect the most favorable terms available from the Vendor. Prices bid cannot be altered or modified as part of a clarification.

Bids will generally be evaluated, based on completeness, content, cost and responsibility of the Vendor to supply the requested Goods and Services. Specific evaluation criteria are listed in Section 3.1 METHOD OF AWARD.

Upon completion of the evaluation process, the State will make Award(s) based on the evaluation and post the award(s) to the State's eVP website under the IFB number for this solicitation. Award of a Contract to one Vendor does not mean that the other bids lacked merit, but that, all factors considered, the selected bid was deemed most advantageous and represented the best value to the State.

The State reserves the right to negotiate with one or more Vendors, or to reject all original offers and negotiate with one or more sources of supply that may be capable of satisfying the requirement, and in either case to require Vendor to submit a Best and Final Offer (BAFO) based on discussions and negotiations with the State.

### 3.4 PERFORMANCE OUTSIDE THE UNITED STATES

Vendor shall complete ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR. In addition to any other evaluation criteria identified in this IFB, the State may also consider, for purposes of evaluating proposed or actual contract performance outside of the United States, how that performance may affect the following factors to ensure that any award will be in the best interest of the State:

- a) Total cost to the State
- b) Level of quality provided by the Vendor
- c) Process and performance capability across multiple jurisdictions
- d) Protection of the State's information and intellectual property

- e) Availability of pertinent skills
- f) Ability to understand the State's business requirements and internal operational culture
- g) Particular risk factors such as the security of the State's information technology
- h) Relations with citizens and employees
- i) Contract enforcement jurisdictional issues

### 3.5 INTERPRETATION OF TERMS AND PHRASES

This IFB serves two functions: (1) to advise potential Vendors of the parameters of the solution being sought by the State; and (2) to provide (together with other specified documents) the terms of the Contract resulting from this procurement. The use of phrases such as "shall," "must," and "requirements" are intended to create enforceable contract conditions. In determining whether bids should be evaluated or rejected, the State will take into consideration the degree to which Vendors have proposed or failed to propose solutions that will satisfy the State's needs as described in the IFB. Except as specifically stated in the IFB, no one requirement shall automatically disqualify a Vendor from consideration. However, failure to comply with any single requirement may result in the State exercising its discretion to reject a bid in its entirety.

## 4.0 REQUIREMENTS

---

This Section lists the requirements related to this IFB. By submitting a bid, the Vendor agrees to meet all stated requirements in this Section, as well as any other specifications, requirements, and terms and conditions stated in this IFB. If a Vendor is unclear about a requirement or specification, or believes a change in a requirement would allow for the State to receive a better bid, the Vendor is encouraged to submit these items in the form of a question during the question and answer period in accordance with the Bid Questions Section above.

### 4.1 PRICING

Bid price shall include the total price for each item, including shipping, delivery, handling, administrative and other similar fees. Assembly and set-up at the State's location shall be shown as an additional line price for each applicable item. Complete ATTACHMENT A: PRICING FORM and include in Vendor's response.

***INVOICES MAY NOT BE PAID UNTIL AN INSPECTION HAS OCCURRED AND THE GOODS OR SERVICES ACCEPTED.***

#### 4.1.1 Import Tariff Temporary Surcharge

Pricing shall be exclusive of any pending tariffs or temporary tariff surcharge. Vendor may request a temporary tariff surcharge in ATTACHMENT A: PRICING SUBMITTAL WORKBOOK as a charge separate from the contract price. Any temporary tariff surcharge(s) associated with purchases shall be provided by way of a percentage tariff surcharge. All tariff surcharges proposed are intended to be temporary and based on current tariff implications specific to related commodities with evidence of submitted documentation of affected MSRP products. Vendor understands that the agency may request additional justification. Any temporary tariff surcharge percentage will be negotiated and mutually agreed upon. The state is not obligated to accept any proposed import tariff surcharge. Proposed tariff surcharges may be used as a factor for evaluation and award.

### 4.2 ESTIMATED QUANTITIES

The quantities indicated herein are **PROJECTED** estimates only and are provided for informational purposes based on the anticipated project requirements. No maximum or minimum quantities are guaranteed. It shall be understood and agreed that the State may purchase more or less than the estimated quantities during the contract period. The State reserves the right to increase or decrease the quantities as needed. The State shall not be obligated to purchase more than its overall requirements. The State will be responsible only for items requested and received.

### 4.3 PRODUCT IDENTIFICATION

#### **SUITABILITY FOR INTENDED USE**

Vendors are requested to offer only items directly complying with the specifications herein or comparable items which will provide the equivalent capabilities, features and diversity called for herein. The State reserves the right to evaluate all bids for

suitability for the required use and to award the one best meeting requirements and considered to be in the State's best interest.

#### 4.4 TRANSPORTATION AND IDENTIFICATION

The Vendor shall deliver Free-On-Board (FOB) Destination to any requested location within the State of North Carolina with all transportation costs and fees included in the total bid price.

When an order is placed using a purchase order, the purchase order number shall be shown on all packages and shipping manifests to ensure proper identification and payment of invoices. If an order is placed without using a purchase order, such as via phone, the Buyer's name shall be shown on all packages. A complete packing list shall accompany each shipment. Vendors shall not ship any products until they have received an order.

#### 4.5 DELIVERY

The Vendor shall deliver Free-On-Board (FOB) Destination to the following location(s):

**FAYETTEVILLE STATE UNIVESITY**  
**1200 MURCHISON RD**  
**FAYETTEVILLE, NC 28301**

Vendor should complete delivery within **120 (one hundred twenty)** consecutive calendar days after receipt of purchase order.

For completion by Vendor: Delivery will be made from \_\_\_\_\_ (city, state) within \_\_\_\_\_ consecutive calendar days after receipt of purchase order. Promptness of delivery may be used as a factor in the award criteria.

#### 4.6 AUTHORIZED RESELLER

The Vendor shall be authorized by the manufacturer to distribute or resell the products and/or maintenance offered in this IFB. The Vendor shall provide a signed statement from the manufacturer confirming authorization with its bid response. Failure to provide this statement shall constitute sufficient grounds for rejection of Vendor's offer, at the discretion of the State.

Vendor is the: ☐ Manufacturer ☐ Dealer ☐ Reseller ☐ Distributor

Authorized: ☐ Yes ☐ No Attached Manufacturer's Authority: ☐ Yes ☐ No

#### 4.7 WARRANTY

Vendor warrants that all equipment furnished under this IFB will be newly manufactured, of good material and workmanship. The warranty will apply from date equipment is put into operation for a minimum period of **twenty four (24) months** or the length of the manufacturer's warranty, whichever is longer. Such warranty shall cover the cost of all defective parts replacement, labor, freight, and technicians' travel at no additional cost to the State, or as specified by the Procurement Entity herein. To the extent not superseded by the terms of this paragraph, manufacturer's warranty terms shall apply. Vendor's warranty shall be at least the level of coverage provided for its comparable customers.

The report of a problem does not presuppose that every call must result in an "on-site" visit for service/repair. The Vendor and/or service sub-contractor shall utilize best efforts to resolve problems in a timely fashion by using acceptable servicing methods to include, but not limited to, verbal problem analysis and remote diagnosis. The warranty requirement does not impose any additional duty on the State to make other than normal and good faith problem resolution efforts or expenditures of time. Vendor shall be responsible for compliance with warranty terms by any third-party service provider. Vendor shall provide contact information for warranty service provider, below.

Vendor is authorized by manufacturer to repair equipment offered during the warranty period? ☐ YES ☐ NO

Will the Vendor provide warranty service? ☐ YES ☐ NO, a manufacturer-authorized third party will perform warranty service.

Contact information for warranty service provider:

Bid Number: 58-IFB2720001

Vendor: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_  
\_\_\_\_\_

Contact Person (name): \_\_\_\_\_

Contact Person (phone number): \_\_\_\_\_

Contact Person (email): \_\_\_\_\_

## **4.9 DESCRIPTIVE LITERATURE**

### **DESCRIPTIVE LITERATURE/CERTIFICATION**

Each bid shall be accompanied by complete descriptive literature, specifications, certifications, and all other pertinent data necessary for thorough evaluation of the item(s) offered and sufficient to determine compliance of the item(s) with the specifications. Failure to include such information shall be a sufficient basis for rejection of the bid.

## **4.10 HUB PARTICIPATION**

Pursuant to North Carolina General Statute G.S. 143-48, it is State policy to encourage and promote the use of small, minority, physically handicapped, and women contractors in purchasing Goods and Services. As such, this IFB will serve to identify those Vendors that are minority owned or have a strategic plan to support the State's Historically Underutilized Business program by meeting or exceeding the goal of 10% utilization of diverse firms as 1st or 2nd tier subcontractors. Vendor shall complete ATTACHMENT D: HUB SUPPLEMENTAL VENDOR INFORMATION.

## **4.11 REFERENCES**

Vendors shall provide at least three (3) references, using ATTACHMENT E: CUSTOMER REFERENCE FORM, for which your company has supplied the exact model of equipment offered. References shall not be from the same company or from the soliciting State entity. In addition, Vendor shall provide references for and identify other government contracts it has received, for which your company has supplied the same or similar model of equipment offered. The State **may** contact these users to determine quality level of the offered equipment; as well as but not limited to user satisfaction with Vendor performance. Information obtained **may** be considered in the evaluation of the bid.

## **4.12 VENDOR'S REPRESENTATIONS**

If the bid results in an award, Vendor agrees that it will not enter any agreement with a third party that may abridge any rights of the State under the Contract. If any Services, deliverables, functions, or responsibilities not specifically described in this solicitation are required for Vendor's proper performance, provision and delivery of the Service and deliverables under a resulting Contract, or are an inherent part of or necessary sub-task included within such service, they will be deemed to be implied by and included within the scope of the contract to the same extent and in the same manner as if specifically described in the Contract. Unless otherwise expressly provided herein, Vendor will furnish all of its own necessary management, supervision, labor, facilities, furniture, computer and telecommunications equipment, software, supplies and materials necessary for the Vendor to provide and deliver the Services and/or other Deliverables.

## **4.13 FINANCIAL STABILITY**

As a condition of contract award, the Vendor must certify that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Vendor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Vendor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any contract, or order by any court of competent jurisdiction

Each Vendor shall certify it is financially stable by completing the ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION. The State is requiring this certification to minimize potential performance issues from contracting with a Vendor that is financially unstable. This Certification shall be deemed continuing, and from the date of the Certification to the expiration of

the Contract, the Vendor shall notify the State within thirty (30) days of any occurrence or condition that materially alters the truth of any statement made in this Certification.

#### 4.14 AGENCY INSURANCE REQUIREMENTS MODIFICATION

A. Default Insurance Coverage from the General Terms and Conditions applicable to this Solicitation:

- ☐ Small Purchases
- ☒ Contract value in excess of the Small Purchase threshold, but up to \$1,000,000.00
- ☐ Contract value in excess of \$1,000,000.00

#### 4.15 LOBBYING ACTIVITVY CERTIFICATION FOR FEDERAL GRANTS

Federal law prohibits recipients of federal funds, whether through grants, contracts, or cooperative agreements, from using those funds to influence or attempt to influence (lobby) a federal official in connection with obtaining, extending, or modifying any federal contract, grant, loan, or cooperative agreement. Further, federal law requires that applicants for federal funds certify:

- that they abide by the above restrictions;
- that they disclose any permissible (non-federal) paid lobbying on the Federal Awards being applied for; and
- that such certification requirements will also be included in any subawards meeting the applicable thresholds.

Vendors must complete and submit the CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS and the OMB STANDARD FORM LLL when responding to this solicitation.

#### 4.16 SUBCONTRACTORS

No portion of the work shall be subcontracted without prior written consent of the State. In the event that the Vendor desires to subcontract some part of the work specified herein, the Vendor shall furnish with their bid the names, qualifications, and experience of their proposed subcontractors. The Vendor shall, however, remain solely and fully liable and responsible for the work done by its subcontractor(s) and shall assure compliance with all the requirements and specifications of the contract.

#### 4.17 SECRETARY OF STATE REGISTRATION

Prior to entering into a contract with the State, the awarded Vendor(s) must complete registration with the NC Secretary of State. Upon notification of award, the selected Vendor(s) must furnish evidence of filing within 10 business days. Failure to provide this documentation may result in the disqualification of the Vendor(s) bid from further consideration for the award.

**No purchase orders shall be issued prior to confirmation of completed registration with the Secretary of State.**

A contract award under the above-referenced solicitation, and the resulting purchase orders, will produce repeated orders and transactions in North Carolina and will constitute "transacting business" in the State, which requires a certificate of authority from the North Carolina Secretary of State as provided in G.S. §55-15-01 (corporations) or §57D-7-01 (LLCs). Please go to: <https://www.sosnc.gov/> to register.

**Vendor has registered with the North Carolina Secretary of State:** Yes ☐ No ☐

#### 4.18. SUSTAINIBILITY EFFORTS

According to G.S. 143-58.2, it is the policy of this State to encourage and promote the purchase of products with recycled content and to purchase items that are reusable, refillable, repairable, more durable, and less toxic to the extent that the purchase or use is practicable and cost effective. The bid must describe how environmental requirements relate to clear labeling of the environmental/sustainability attributes (e.g. environmental certifications, total and post-consumer recycled content, etc.) of products in the proposed product catalogs, demonstrating the ability to run usage reports that include information about each product's environmental/sustainability attributes, packaging and recycling of spent products.

## 5.0 PRODUCT SPECIFICATIONS

### 5.1 SPECIFICATIONS

The specific items and any specifications that the Procurement Entity is seeking are outlined in **ATTACHMENT I: Campuswide Utility Infrastructure Package B – Switch Equipment Prepurchase Package Project Specifications**. Items offered by the Vendor must meet or exceed the listed Specifications within **ATTACHMENT I: Campuswide Utility Infrastructure Package B – Switch Equipment Prepurchase Package Project Specifications**.

| Item # | Specifications                                                                                                                                                                                                  |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | See ATTACHMENT I: Campuswide Utility Infrastructure Package B – Switch Equipment Prepurchase Package Project Specifications<br><b>SECTION 261329.1 - MEDIUM-VOLTAGE PAD MOUNTED SWITCHES – AIR INSULATED</b>    |
| 2      | See ATTACHMENT I: Campuswide Utility Infrastructure Package B – Switch Equipment Prepurchase Package Project Specifications<br><b>SECTION 261329.2 - MEDIUM-VOLTAGE PAD MOUNTED SWITCHES – SOLID DIELECTRIC</b> |

### VENDOR'S RESPONSE

| Item # | Specifications | Product/Service Offered Meets Specification              |
|--------|----------------|----------------------------------------------------------|
|        |                | <input type="checkbox"/> YES <input type="checkbox"/> NO |
|        |                | <input type="checkbox"/> YES <input type="checkbox"/> NO |

### 5.2 CERTIFICATION AND SAFETY LABELS

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization; such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and /or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

### 5.3 DEVIATIONS

The nature of all deviations from the Specifications listed herein shall be clearly described by the Vendor. Otherwise, it will be considered that items offered by the Vendor are in strict compliance with the Specifications provided herein, and the successful Vendor shall be required to supply conforming goods. Deviations shall be explained in detail on an attached sheet. However, no implication is made or intended by the State that any deviation will be acceptable. Do not list objections to the North Carolina General Terms and Conditions in this section.



## 6.0 CONTRACT ADMINISTRATION

All Contract Administration requirements are conditioned on an award resulting from this solicitation. This information is provided for the Vendor's planning purposes

### 6.1 CONTRACT MANAGER AND CUSTOMER SERVICE

The Vendor shall be required to designate and make available to the State a contract manager. The contract manager shall be the State's point of contact for Contract related issues and issues concerning performance, progress review, scheduling, and service.

| Contract Manager Point of Contact |  |
|-----------------------------------|--|
| Name:                             |  |
| Office Phone #:                   |  |
| Mobile Phone #:                   |  |
| Email:                            |  |

The Vendor shall be required to designate and make available to the State for customer service. The customer service point of contact shall be the State's point of contact for customer service-related issues (define roles and responsibilities).

| The Vendor shall be required to designate and make available to the State for customer service. The customer service point of contact shall be the State's point of contact for customer service-related issues (define roles and responsibilities). |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Customer Service Point of Contact                                                                                                                                                                                                                    |  |
| Name:                                                                                                                                                                                                                                                |  |
| Office Phone #:                                                                                                                                                                                                                                      |  |
| Mobile Phone #:                                                                                                                                                                                                                                      |  |
| Email:                                                                                                                                                                                                                                               |  |

### 6.3 CONTINUOUS IMPROVEMENT

The State encourages the Vendor to identify opportunities to reduce the total cost the State. A continuous improvement effort consisting of various ideas to enhance business efficiencies as performance progresses.

### 6.4 ACCEPTANCE OF WORK

Performance of the work and delivery of Goods shall be conducted and completed at least in accordance with the Contract requirements and recognized and customarily accepted industry practices. Performance shall be considered complete when the Services or Goods are approved as acceptable by the Contract Manager.

The State shall have the obligation to notify Vendor, in writing ten (10) calendar days following completion of such work or delivery of a deliverable described in the Contract that it is not acceptable. The notice shall specify in reasonable detail the reason(s) it is unacceptable. Acceptance by the State shall not be unreasonably withheld; but may be conditioned or delayed as required for reasonable review, evaluation, installation, or testing, as applicable to the work or deliverable. Final acceptance is expressly conditioned upon completion of all applicable assessment procedures. Should the work or deliverables fail to meet

any specifications, acceptance criteria or otherwise fail to conform to the Contract, the State may exercise any and all rights hereunder, including, for Goods deliverables, such rights provided by the Uniform Commercial Code, as adopted in North Carolina.

## 6.6 INVOICES

Vendor shall invoice the Procurement Entity. The standard format for invoicing shall be Single Invoices meaning that the Vendor shall provide the Procurement Entity with an invoice for each order. Invoices shall include detailed line-item information to allow Procurement Entity to verify pricing at point of receipt matches the correct price from the original date of order. At a minimum, the following fields shall be included on all invoices:

Vendor's Billing Address, Customer Account Number, NC Contract Number, Order Date, Buyer's Order Number, Manufacturer Part Numbers, Vendor Part Numbers, Item Descriptions, Price, Quantity, and Unit of Measure.

**INVOICES MAY NOT BE PAID UNTIL AN INSPECTION HAS OCCURRED AND THE GOODS ACCEPTED.**

## 6.7 DISPUTE RESOLUTION

During the performance of the Contract, the Parties agree that it is in their mutual interest to resolve disputes informally. Any claims by the Vendor shall be submitted in writing to the State's Contract Manager for resolution. Any claims by the State shall be submitted in writing to the Vendor's Project Manager for resolution. The Parties shall agree to negotiate in good faith and use all reasonable efforts to resolve such dispute(s).

During the time the Parties are attempting to resolve any dispute, each shall proceed diligently to perform their respective duties and responsibilities under this Contract. The Parties will agree on a reasonable amount of time to resolve a dispute. If a dispute cannot be resolved between the Parties within the agreed upon period, either Party may elect to exercise any other remedies available under the Contract, or at law. This provision, when agreed in the Contract, shall not constitute an agreement by either party to mediate or arbitrate any dispute.

## 6.8 PRODUCT RECALL

Vendor expressly assumes full responsibility for prompt notification to the Buyer listed on the face of this IFB of any product recall in accordance with the applicable state or federal regulations. The Vendor shall support the State, as necessary, to promptly replace any such products, at no cost to the State.

## 6.9 PRICE ADJUSTMENTS

Prices proposed by the Vendor shall be firm against any increase for **60 (sixty) days** from the effective date of the Contract. However at no time after the Purchase Order is issued shall the prices be increased.

Price increase requests shall be submitted in writing to the Contract Lead, which shall include the reason(s) for the request and contain supporting documentation for the need. Price increases will be negotiated and agreed to by both the State and Vendor in advance of any price increase going into effect. The State is not obligated to accept pricing adjustments or increases and reserves the right to accept or reject them in part or in whole. Price de-escalation or decreases may be requested by the State at any time.

It is understood and agreed that orders will be shipped at the established Contract prices in effect on the date an order is placed. Invoicing that deviates from this provision may result in Contract to cancellation.

## 6.10 CONTRACT CHANGES

Contract changes, if any, over the life of the Contract shall be implemented by contract amendments agreed to in writing by the State and Vendor. Amendments to the contract can only be made through the contract administrator.

**The remainder of this page is intentionally left blank**

## 7.0 ATTACHMENTS

### **\*\*IMPORTANT NOTICE\*\***

#### **RETURN THE REQUIRED ATTACHMENTS WITH YOUR RESPONSE**

FOLLOW THE LINKS TO ACCESS EACH ATTACHMENT

#### **ATTACHMENT A: PRICING**

Complete and return the Pricing associated with this IFB, which can be found in the table below:

| LINE<br>ITEM<br>#             | QTY | LINE-ITEM DESCRIPTION                                                                                        | LEADTIMEAFTER<br>RECEIPT OF ORDER<br>(ARO) (DAYS) | LINE-ITEM<br>PRICE<br>(EA)              | TOTAL LINE COST |
|-------------------------------|-----|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------|-----------------|
| 1                             | 7   | MEDIUM-VOLTAGE PAD MOUNTED<br>SWITCHES – AIR INSULATED (4-WAY)                                               |                                                   |                                         |                 |
| 2                             | 1   | MEDIUM-VOLTAGE PAD MOUNTED<br>SWITCHES – SOLID DIELECTRIC (6-WAY)                                            |                                                   |                                         |                 |
|                               |     |                                                                                                              |                                                   | <b>TOTAL BID PRICE</b>                  |                 |
| <b>EXTENDED WARRANTY COST</b> |     |                                                                                                              |                                                   |                                         |                 |
| LINE<br>ITEM<br>#             | QTY | LINE-ITEM DESCRIPTION                                                                                        | WARRANTY LENGTH                                   | LINE-ITEM<br>PRICE<br>(EA)              | TOTAL LINE COST |
| 3                             | 7   | <b>MINIMUM 2-YEAR EXTENDED WARRANTY:</b><br>MEDIUM-VOLTAGE PAD MOUNTED SWITCHES<br>– AIR INSULATED (4-WAY)   |                                                   |                                         |                 |
| 4                             | 1   | <b>MINIMUM 2-YEAR EXTENDED WARRANTY</b><br>MEDIUM-VOLTAGE PAD MOUNTED SWITCHES<br>– SOLID DIELECTRIC (6-WAY) |                                                   |                                         |                 |
|                               |     |                                                                                                              |                                                   | <b>TOTAL COST OF ALL<br/>WARRANTIES</b> |                 |

#### **ATTACHMENT B: INSTRUCTIONS TO VENDORS**

The Instructions to Vendors, which are incorporated herein by this reference, may be found here:

<https://www.doa.nc.gov/pandc/north-carolina-instructions-vendors-1-2025/open>

#### **ATTACHMENT C: NORTH CAROLINA GENERAL TERMS & CONDITIONS**

The North Carolina General Terms and Conditions, which are incorporated herein by this reference, may be found here:

<https://www.doa.nc.gov/north-carolina-general-terms-and-conditions-5-2025/open>

#### **E: CUSTOMER REFERENCE FORM**

Complete and return the Customer Reference Form, which can be found at the following link:

<https://ncadmin.nc.gov/media/15503/open>

#### **ATTACHMENT F: LOCATION OF WORKERS UTILIZED BY VENDOR**

Complete and return the Location of Workers Utilized by Vendor, which can be found at the following link:

<https://www.doa.nc.gov/pandc/onlineforms/pc-worker-location-92021-pdf/open>

#### **ATTACHMENT G: CERTIFICATION OF FINANCIAL CONDITION**

Complete, sign, and return the Certification of Financial Condition, which can be found at the following link:

<https://www.doa.nc.gov/pandc/onlineforms/pc-certification-financial-condition-92021-pdf/open>

---

**ATTACHMENT H: VENDOR REQUEST FOR EO50 PRICE-MATCHING**

---

Complete, sign, and return the Vendor Request for EO50 Price-Matching, which can be found at the following link:

<https://www.doa.nc.gov/pandc/onlineforms/pc-eo-50-vendor-price-matching-opportunity-92021-pdf/open>

---

**ATTACHMENT I: CAMPUSWIDE UTILITY INFRASTRUCTURE PACKAGE B – SWITCH EQUIPMENT PREPURCHASE PACKAGE PROJECT SPECIFICATIONS**

---

Specifications for items requested herein.

---

**LOBBYING ACTIVITY CERTIFICATION FOR FEDERAL GRANTS**

---

The Certification for Contracts, Grants, Loans, and Cooperative Agreements and the OMB Standard Form LLL are separate documents that can be found at the following link:

<https://www.doa.nc.gov/pc-contracts-grants-loans-cooperative-agreements-certification-72020-pdf/open>

**\*\*\* Failure to Return the Required Attachments May Eliminate  
Your Response from Further Consideration \*\*\***



## Campuswide Utility Infrastructure – Package B – Switch Equipment Pre- Purchase Package

Project Specifications

RMF Project No.: 02230195.B0

SCO ID: 23-26219-02B

CD Submission

May 29, 2026



8081 Arco Corporate Dr. Ste. 300 OFFICE 919.941.9876  
Raleigh, North Carolina 27617 WEB [rmf.com](http://rmf.com)



Electrical Engineer – Thomas B. Meade, PE NC 060672:  
Div. 26



Prime Firm – RMF Engineering, Cert No. C-1125:



SECTION 261329.1 - MEDIUM-VOLTAGE PAD MOUNTED SWITCHES – AIR INSULATED

**\*NOTE: THIS SPECIFICATION IS FOR THE PURCHASE OF THE PAD-MOUNTED SWITCHES. OFFLOADING, STORAGE, TESTING, AND INSTALLATION REQUIREMENTS AT THE PROJECT SITE ARE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED FOR REFERENCE ONLY.**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The pad-mounted gear shall consist of a single self-supporting enclosure, containing interrupter switches and power fuses with the necessary components, all completely factory-assembled and operationally checked. Switch terminals shall be equipped with bushings rated 600 amperes continuous, and fuse terminals shall be equipped with bushing wells rated 200 amperes continuous to provide for elbow connection. Bushings and bushing wells shall be mounted on the walls of the inner compartment and shall extend into termination compartments. Termination compartments shall be provided as follows: one for each three-phase switch and one for each three-phase set of fuses.
- B. **Quantity of 4-way pad-mounted switches: 7**

1.3 SUBMITTALS

- A. Product Data: For each type of switchgear and related equipment.
  - 1. Features, accessories, characteristics, and ratings for switches.
- B. Shop Drawings: For each type of switchgear and related equipment. Provide approval drawings for review by the owner and engineer. Release the equipment for production only once the drawings are approved by the owner and engineer. Provide final factory as-built drawings after the switches after shipment from the factory.
  - 1. Dimensioned plans, elevations, sections, and details, including required clearances and service space around equipment. Show method of field assembly and location and size of each field connection. Include the following:
    - a. Tabulation of installed devices with features and ratings.
    - b. Outline and general arrangement drawing showing dimensions, shipping sections, and weights of each assembled section.
    - c. Drawing of cable termination compartments showing preferred locations for conduits and indicating space available for cable terminations.
    - d. Current ratings of buses.



- e. Short-time and short-circuit ratings of switchgear assembly.
- f. Nameplate legends.

2. Wiring Diagrams: For each type of switchgear and related equipment.

- a. Power, signal, and control wiring.
- b. Three-line diagrams of current and future secondary circuits showing device terminal numbers and internal diagrams.
- c. Diagrams showing connections of component devices and equipment.
- d. Schematic diagrams showing connections to remote devices.

C. Field quality-control test reports.

D. Material Test Reports: For each type of switchgear and related equipment

E. Operation and Maintenance Data: For switchgear and switchgear components to include in emergency, operation, and maintenance manuals.

1.4 QUALITY ASSURANCE

A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.

1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.

B. Source Limitations: Obtain switchgear and switchgear components through one source from a single manufacturer.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. Comply with IEEE C2.

1.5 DELIVERY, STORAGE, AND HANDLING

A. The switch manufacturer shall only ship switches to site when a minimum of 4 switches are available. This is to limit the number of times the contractor must mobilize to offload the switches at the site. **The pallets provided by the switch manufacturer for shipping are to have pressure treated plywood tops to prevent dirt contamination and animal entry during storage exposed to weather.**

B. Freight terms are to be FOB Destination, Freight Prepaid.

- C. Store switchgear indoors where possible in clean dry space with uniform temperature to prevent condensation. Protect switchgear from exposure to dirt, fumes, water corrosive substances, and physical damage. Comply with manufacturers storage requirements for the equipment. The State of NC cannot process pay requests for procured equipment unless it is delivered to the job site or stored in a NC bonded warehouse accessible for inspection by SCO. If stored in areas subjected to weather, cover switchgear to provide protection from weather, dirt, dust, corrosive substances, and physical damage. Remove loose packing and flammable materials from inside switchgear.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation at indicated ampere ratings for the following conditions:
  - 1. Ambient Temperature: Not exceeding 0-40 deg C.
  - 2. Altitude: Not exceeding 6600 feet.
- B. Interruption of Existing Utility Service: Do not interrupt utility service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility service according to requirements indicated:
  - 1. Notify Engineer and Owner no fewer than 30 days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Owner and Engineer's written permission.

#### 1.7 COORDINATION

- A. Coordinate layout and installation of switchgear and components with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required clearances for workspace and equipment access doors and panels.
- B. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases.

#### 1.8 WARRANTY

- A. The switch manufacturer shall warrant to the owner that each switch and all internal components and wiring is free from defects in material, design and workmanship and will provide reliable performance for a period of two years from the date of shipment.
- B. Provide pricing as a separate line item for an extended warranty. Extended warranty shall be for an additional 2 years for a total of 4 years from shipment.

### PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

### A. Manufacturers: Provide products by the following:

1. S&C Electric Company – PME-9
2. Federal Pacific – PSE-9
3. Maddox

## 2.2 MANUFACTURED UNITS

- ### A. Description: Factory assembled and tested, complying with IEEE C37.20.1.
- ### B. Ratings: Suitable for application in 3-phase, 60-Hz, multi-point grounded-neutral system.

## 2.3 LOAD BREAK PAD MOUNTED SECTIONALIZING SWITCHES

- ### A. The pad-mounted gear shall be in accordance with the one-line diagram and shall conform to the following specification.
- ### B. Padmount switches are rated at 600A, they will contain a combination of load break switches and fused tap ways. See description below.

1. Voltage Class: 12.47 kV (nominal), 17 kV (max), 95 kV BIL
2. Type: Padmount, Front and Rear Access
3. Number of ways (configuration): 4 way – 2 load break mainline ways /2 fused tap ways

#### a. Fuse size and speed to be provided by engineer prior to shipment of switches.

4. Continuous and load break rating: 600 Amp
5. Peak, peak withstand rating: 65,000 A
6. RMS Sym, one-sec, short-time withstand: 25,000 A
7. Bushings:

#### a. Provided by Contractor:

- 1) Line (ways 1 & 2) – 600 Amp dead break elbow connector, bushing adapter, 200 amp load break elbow tap plug (rated for 15kV), 200 amp insulated cap with ground (rated for 15kV).
- 2) Load (ways 3 & 4) – 200 amp load break bushing well inserts, 200 amp load break elbow connector, insulated parking bushings, 200 amp insulated cap with ground (rated for 15kV).

#### b. Provided by Switch Manufacturer.

- 1) Line (ways 1 & 2) – 600 Amp dead break bushing.
- 2) Load (ways 3 & 4) – 200 Amp bushing well.

8. Minimum Bushing Height: 24"
9. Enclosure: 14-gauge mild steel enclosure with 30" cable compartment, painted **Munsell Green – Munsell 7GY3.29/1.5.**
10. Faulted Circuit Indication shall be provided on all 4 ways:
  - a. Provided by manufacturer:
    - 1) Manufacturer shall provide FCI viewing windows on all 4 ways.
  - b. Provided by contactor:
    - 1) Fault current indication system shall consist of three sensors and one indicator per way (total of four ways). This system is required to be operable without external DC power supplies. The indicators shall be mounted in the FCI viewing window of its respective way. One sensor shall be installed on each phase, totaling three per way and shall connect to its respective remote indicator with 6ft leads. Automatic time reset with return of load current and manual reset override for indicator shall be used. FCIs shall use adaptive current trip with inrush restraint logic. The FCI system and mounting hardware will be supplied as loose components for installation in the field by contractor. This system and mounting hardware will be furnished by contractor.

C. Compliance with Standards and Codes

1. The pad-mounted gear shall conform to or exceed the applicable requirements of the following standards and codes:
  - a. IEEE C37.74, IEEE C37.60, ANSI/IEEE 386, IEC60529, IEEE 592, ANSI/ IEEE C37.60.2 or equivalent, C37.60.1 or equivalent, IEC 60255-22, IEC 60255-21-1 or equivalent, IEC 60255-21-2 or equivalent. All portions of ANSI C57.12.28, covering enclosure integrity for pad-mounted equipment.
  - b. Article 710-21(e) in the National Electrical Code, which specifies that the interrupter switches in combination with power fuses shall safely withstand the effects of closing, carrying, and interrupting all possible currents up to the assigned maximum short-circuit rating.
  - c. All portions of ANSI, IEEE, and NEMA standards applicable to the basic switch and fuse components.

D. Enclosure Design

1. To ensure a completely coordinated design, the pad-mounted gear shall be constructed in accordance with the minimum construction specifications of the fuse and/or switch manufacturer to provide adequate electrical clearances and adequate space for fuse handling.
2. In establishing the requirements for the enclosure design, consideration shall be given to all relevant factors such as controlled access, tamper resistance, and corrosion resistance.

E. The fuse-mounting insulators shall be of an epoxy resin system with characteristics and restrictions as follows:

1. Adequate leakage distance established by test per IEC Publication 507, First Edition, 1975.
2. Adequate strength for short-circuit stress established by test.

3. Conformance with applicable ANSI standards.
4. Homogeneity of the epoxy resin throughout each insulator to provide maximum resistance to power arcs. Ablation due to high temperatures from power arcs shall continuously expose more material of the same composition and properties so that no change in mechanical or electrical characteristics takes place because of arc-induced ablation. Furthermore, any surface damage to insulators during installation or maintenance of the pad-mounted gear shall expose material of the same composition and properties so that insulators with minor surface damage need not be replaced.

F. High-Voltage Bus

1. Bus and interconnections shall withstand the stresses associated with short-circuit currents up through the maximum rating of the pad-mounted gear.

G. Ground-Connection Pads

1. A ground-connection pad shall be provided in each compartment of the pad-mounted gear.
2. The ground-connection pad shall be constructed of 3/8" thick steel, which shall be nickel plated and welded to the enclosure and shall have a short-circuit rating equal to that of the pad-mounted gear.
3. Ground-connection pads shall be coated with a uniform coating of an oxide inhibitor and sealant prior to shipment.
4. A 3/8" diameter copper rod connected to the ground-connection pad shall be provided in each termination compartment for switches and each termination compartment for bus. The rod shall extend across the full width of each compartment to allow convenient grounding of cable concentric neutrals and accessories and shall have a short-circuit rating equal to that of the pad-mounted gear. Continuous copper ground bus shall be provided across the full width of each termination compartment for fuses. For each fuse mounting, there shall be a ground ring made of 3/8" diameter copper rod bolted to the ground bus and placed to allow convenient grounding of cable concentric neutrals and accessories. Ground rings and bus shall have a short-circuit rating equal to that of the pad-mounted gear.

H. Bushing and Bushing Wells

1. Bushing and bushing wells shall conform to ANSI/IEEE Standard 386 (ANSI Standard C119.2).
2. Bushing and bushing wells shall be of a cycloaliphatic epoxy resin system with characteristics and restrictions as follows:
  - a. Operating experience of at least 10 years under similar conditions.
  - b. Adequate leakage distance for in-air application established by test per IEC Publication 507, First Edition 1975.
  - c. Adequate strength of short-circuit stress established by test.
  - d. Conformance with applicable ANSI standards

- e. Homogeneity of the cycloaliphatic epoxy resin throughout each bushing or bushing well to provide maximum resistance to power arcs. Ablation due to high temperatures from power arcs shall continuously expose more material of the same composition and properties so that no change in mechanical or electrical characteristics takes place because of arc-induced ablation.
  - 3. Bushing and bushing wells shall be mounted in such a way that the semiconductive coating is solidly grounded to the enclosure.
  - 4. Bushing rated 600 amperes continuous shall have a removable threaded stud so that the bushings are compatible with all 600-ampere elbow systems-those requiring a threaded stud as well as those that do not.
- I. Enclosure
- 1. The pad-mounted gear enclosure shall be of unitized monocoque (not structural-frame-and-bolted-sheet) construction to maximize strength, minimize weight, and inhibit corrosion.
  - 2. The basic material shall be 11-gauge hot-rolled, pickled and oiled steel sheet.
  - 3. All structural joints and butt joints shall be welded, and the external seams shall be ground flush and smooth. The gas-metal-arc welding process shall be employed to eliminate alkaline residues and to minimize distortion and spatter.
  - 4. To guard against unauthorized or inadvertent entry, enclosure construction shall not utilize any externally accessible hardware.
  - 5. The base shall consist of continuous 90-degree flanges, turned inward and welded at the corners, for bolting to the concrete pad.
  - 6. The door openings shall have 90-degree flanges, facing outward, that shall provide strength and rigidity as well as deep overlapping between doors and door openings to guard against water entry.
  - 7. Enclosure top side edges shall overlap with roof side edges to create a mechanical maze which shall allow ventilation to help keep the enclosure interior dry while discouraging tampering or insertion of foreign objects.
  - 8. A heavy coat of insulating "no-drip" compound shall be applied to the inside surface of the roof to minimize condensation of moisture thereon.
  - 9. Insulating interphase and end barriers of NEMA GPO3-grade fiberglass-reinforced polyester shall be provided for each interrupter switch and each set of fuses where required to achieve BIL ratings. Additional insulating barriers of the same material shall separate the front compartments from the rear compartments and isolate the tie bus (where furnished).
  - 10. Full-length steel barriers shall separate side-by-side compartments.
  - 11. Lifting tabs shall be removable. Sockets for the lifting-tab bolts shall be blind-tapped. A resilient material shall be placed between the lifting tabs and the enclosure to help prevent corrosion by protecting the finish against scratching by the tabs. To further preclude corrosion, this material shall be closed-cell to prevent moisture from being absorbed and held between the tabs and the enclosure in the event that lifting tabs are not removed.
  - 12. A steel-compartmented, base spacer shall be provided to increase the elevation of live parts in the pad-mounted gear above the mounting pad by 24 inches.

J. Door

1. Doors shall be constructed of 11-gauge hot-rolled, pickled and oiled steel sheet.
2. Door-edge flanges shall overlap with door-opening flanges and shall be formed to create a mechanical maze that shall guard against water entry and discourage tampering or insertion of foreign objects but shall allow ventilation to help keep the enclosure interior dry.
3. Doors shall have a minimum of two extruded-aluminum hinges with stainless-steel hinge pins and interlocking extruded-aluminum hinge supports for the full length of the door to provide strength, security, and corrosion resistance. Mounting hardware shall be stainless steel or zinc-nickel-plated steel and shall not be externally accessible to guard against tampering.
4. In consideration of controlled access and tamper resistance, each door (or set of double doors) shall be equipped with an automatic three-point latching mechanism.
5. The latching mechanism shall be spring loaded and shall latch automatically when the door is closed. All latch points shall latch at the same time to preclude partial latching.
6. A pentahead socket wrench or tool shall be required to actuate the mechanism to unlatch the door and, in the same motion, recharge the spring for the next closing operation.
7. The latching mechanism shall have provisions for padlocking that incorporate a means to protect the padlock shackle from tampering and that shall be coordinated with the latches such that:
  - a. It shall not be possible to unlatch the mechanism until the padlock is removed, and
  - b. It shall not be possible to insert the padlock until the mechanism is completely latched closed.
8. Doors providing access to solid-material power fuses shall have provisions to store spare fuse units or refill units.
9. Each door shall be provided with a zinc-nickel-plated steel door holder located above the door opening. The holder shall be hidden from view when the door is closed, and it shall not be possible for the holder to swing inside the enclosure.

K. Finish

1. Full coverage at joints and blind areas shall be achieved by processing enclosures independently of components such as doors and roofs before assembly into the unitized structures.
2. All exterior seams shall be filled and sanded smooth for neat appearance.
3. To remove oils and dirt, to form a chemically and anodically neutral conversion coating to improve the finish-to-metal bond, and to retard underfilm propagation of corrosion, all surfaces shall undergo a thorough pretreatment process comprised of a fully automated system of cleaning, rinsing, phosphatizing, sealing, drying, and cooling before any protective coatings are applied. By utilizing an automated pretreatment process, the enclosure shall receive a highly consistent thorough treatment, eliminating fluctuations in reaction time, reaction temperature, and chemical concentrations.
4. After pretreatment, protective coatings shall be applied that shall help resist corrosion and protect the steel enclosure. To establish the capability to resist corrosion and protect

the enclosure, representative test specimens coated by the enclosure manufacturer's finishing system shall satisfactorily pass the following tests:

- a. 4000 hours of exposure to salt-spray testing per ASTM B 117 with:
  - b. Underfilm corrosion not to extend more than 1/32" from the scribe as evaluated per ASTM D 1645, Procedure A, Method 2 (scraping); and
  - c. Loss of adhesion from bare metal not to extend more than 1/8" from the scribe.
  - d. 1000 hours of humidity testing per ASTM D 4585 with no blistering as evaluated per ASTM D 714.
  - e. 500 hours of accelerated weathering testing per ASTM G 53 using lamp UVB-313 with no chalking as evaluated per ASTM D 659, and no more than 10% reduction of gloss as evaluated per ASTM D 523.
  - f. Crosshatch adhesion testing per ASTM D 3359 Method B with no loss of finish.
  - g. 160-inch-pound impact adhesion testing per ASTM D 2794 with no chipping or cracking.
  - h. Oil resistance testing consisting of a 72-hour immersion bath in mineral oil with no shift in color, no streaking, no blistering, and no loss of hardness.
  - i. 3000 cycles of abrasion testing per ASTM 4060 with no penetration to the substrate.
5. Certified test abstracts substantiating the above capabilities shall be furnished upon request.
  6. After the finishing system has been properly applied and cured, welds along the enclosure bottom flange shall be coated with a wax-based anticorrosion moisture barrier to give these areas added corrosion resistance.
  7. A resilient closed-cell material, such as PVC gasket, shall be applied to the entire underside of the enclosure bottom flange to protect the finish on this surface from scratching during handling and installation. This material shall isolate the bottom flange from the alkalinity of a concrete foundation to help protect against corrosive attack.
  8. After the enclosure is completely assembled and the components (switches, fuses, bus, etc.) are installed, the finish shall be inspected for scuffs and scratches. Blemishes shall be touched up by hand to restore the protective integrity of the finish.
  9. To guard against corrosion, all hardware (including door fittings, fasteners, etc.), all operating-mechanism parts, and other parts subject to abrasive action from mechanical motion shall be of either nonferrous materials, or galvanized or zinc-nickel-plated ferrous materials. Cadmium-plated ferrous parts shall not be used.
- L. The switch shall have parking stands for all bushings.
  - M. Provide adequate depth for bushings rated 600 A continuous to accommodate two 600 A elbows mounted piggyback, encapsulated surge arresters or grounding elbows mounted on 600 A elbows having 200 A interfaces.
  - N. The padmount enclosure shall be 11 gauge galvanized steel with 27" cable compartment. It shall meet ANSI C37.72 & C57.12.28 standards.
  - O. The enclosure shall include ½" 13 NC grounding provisions.



- P. The switch shall have windows to verify OPEN/CLOSED indicator position with green/OPEN and red/CLOSED.

## 2.4 LABELING

### A. Hazard Alerting Signs

- 1. The exterior of the pad mount enclosure (if furnished) shall be provided with “Warning--Keep Out--Hazardous Voltage Inside--Can Shock, Burn, or Cause Death” signs. Each unit of switchgear shall be provided with a “Danger--Hazardous Voltage--Failure to Follow These Instructions Will Likely Cause Shock, Burn, or Death” sign. The text shall further indicate that operating personnel must know and obey the employer’s work rules, know the hazards involved, and use proper protective equipment and tools to work on this equipment. Each unit of switchgear shall be provided with a “Danger--Keep Away--Hazardous Voltage--Will Shock, Burn, or Cause Death” sign.

### B. Nameplates Ratings Labels, and Connections Diagrams

- 1. Each unit of switchgear shall be provided with a nameplate indicating the manufacturer’s name, catalog number, model number, date of manufacture, and serial number. Provide two nameplates with one installed on the interior of the switch and one on the exterior. Each unit of switchgear shall be provided with a ratings label indicating the following: voltage rating; main bus continuous rating; short-circuit rating.

## 2.5 SOURCE QUALITY CONTROL

### A. Before shipment of equipment, perform the following tests and prepare test reports:

- 1. Production tests on completed switchgear assembly according to IEEE C37.20.2, Section 5.3.

### B. Prepare equipment for shipment.

- 1. Provide suitable crating, blocking, and supports so equipment will withstand expected domestic shipping and handling shocks and vibration.
- 2. Weatherproof equipment for shipment. Close connection openings to prevent entrance of foreign material during shipment and storage.

## PART 3 - EXECUTION

- 3.1 Contractor to coordinate with construction manager on delivery of switch from local storage yard to project site. Contractor shall pick up, transport switch to site, and off load onto concrete pad.

## 3.2 EXAMINATION

- A. Examine elements and surfaces to receive switchgear for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.3 INSTALLATION

- A. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from switchgear units and components.

### 3.4 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 26 Section "Identification of Electrical Systems."

### 3.5 CONNECTIONS

- A. Cable terminations at switchgear are specified in Division 26 Section "Medium-Voltage Cables."
- B. Install equipment grounding conductors for switchgear with ground continuity to main electrical ground bus.
- C. Tighten bus joints, electrical connectors, and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

### 3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor to engage a qualified 3rd party testing and inspecting agency to perform the following field tests and inspections and prepare test reports:
  - 1. Perform each related electrical test and visual and mechanical inspection stated in NETA ATS-2017 7.5.1.2. Certify compliance with test parameters. Optional tests are not required to be performed.
  - 2. Perform all tests recommended by manufacturer instructions.
  - 3. Perform the following:
    - a. Test grounding connections at each connection to the equipment ground bus with a low resistance ohmmeter with test leads connected to the bare ground conductors and the switch ground bus.
  - 4. Submit certified written report of results to Engineer and Owner.
- B. Site Acceptance Testing: Support site acceptance testing as described in spec section 019113.
- C. Remove and replace malfunctioning units and retest as specified above.

### 3.7 CLEANING

- A. On completion of installation, inspect interior and exterior of switchgear. Vacuum dirt and debris; do not use compressed air to assist in cleaning. Repair damaged finishes.

END OF SECTION 261329.1

## SECTION 261329.2 - MEDIUM-VOLTAGE PAD MOUNTED SWITCHES – SOLID DIELECTRIC

**\*NOTE: THIS SPECIFICATION IS FOR THE PURCHASE OF THE PAD-MOUNTED SWITCHES. OFFLOADING, STORAGE, TESTING, AND INSTALLATION REQUIREMENTS AT THE PROJECT SITE ARE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED FOR REFERENCE ONLY.**

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. The pad- mounted gear shall be in accordance with the one-line diagram and shall conform to the following specification.
- B. The switchgear shall consist of freestanding, self-supporting, pad mounted switchgear, complete with solid dielectric insulated remote operated load break switches and resettable vacuum fault interrupter electronically controlled, bushings and bus terminals. No SF6 gas shall be allowed.
- C. **Quantity of 6-way pad-mounted switches: 1**

#### 1.3 SUBMITTALS

- A. Product Data: For each type of switchgear and related equipment.
  - 1. Features, accessories, characteristics, and ratings for individual interrupter switches.
- B. Shop Drawings: For each type of switchgear and related equipment.
  - 1. Dimensioned plans, elevations, sections, and details, including required clearances and service space around equipment. Show method of field assembly and location and size of each field connection. Include the following:
    - a. Tabulation of installed devices with features and ratings.
    - b. Outline and general arrangement drawing showing dimensions, shipping sections, and weights of each assembled section.
    - c. Drawing of cable termination compartments showing preferred locations for conduits and indicating space available for cable terminations.
    - d. Current ratings of buses.
    - e. Short-time and short-circuit ratings of switchgear assembly.
    - f. Nameplate legends.

2. Wiring Diagrams: For each type of switchgear and related equipment.
  - a. Power, signal, and control wiring.
  - b. Three-line diagrams of current and future secondary circuits showing device terminal numbers and internal diagrams.
  - c. Diagrams showing connections of component devices and equipment.
  - d. Schematic diagrams showing connections to remote devices.
- C. Field quality-control test reports.
- D. Material Test Reports: For each type of switchgear and related equipment.
- E. Operation and Maintenance Data: For switchgear and switchgear components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Closeout Procedures," include the following:
  1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
  2. Time-current curves, including selectable ranges for each type of overcurrent protective device.

#### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the InterNational Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
  1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.
- B. Source Limitations: Obtain switchgear and switchgear components through one source from a single manufacturer.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Comply with IEEE C2.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. **The pallets provided by the switch manufacturer for shipping are to have pressure treated plywood tops to prevent dirt contamination and animal entry during storage exposed to weather.**

- B. Freight terms are to be FOB Destination, Freight Prepaid.
- C. Store switchgear indoors where possible in clean dry space with uniform temperature to prevent condensation. Protect switchgear from exposure to dirt, fumes, water corrosive substances, and physical damage. Comply with manufacturers storage requirements for the equipment. The State of NC cannot process pay requests for procured equipment unless it is delivered to the job site or stored in a NC bonded warehouse accessible for inspection by SCO. If stored in areas subjected to weather, cover switchgear to provide protection from weather, dirt, dust, corrosive substances, and physical damage. Remove loose packing and flammable materials from inside switchgear.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation at indicated ampere ratings for the following conditions:
  - 1. Ambient Temperature: Not exceeding 0-40 deg C.
  - 2. Altitude: Not exceeding 6600 feet.
- B. Interruption of Existing Utility Service: Do not interrupt utility service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility service according to requirements indicated:
  - 1. Notify Engineer and Owner no fewer than 30 days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Owner and Engineer's written permission.

## 1.7 COORDINATION

- A. Coordinate layout and installation of switchgear and components with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required clearances for workspace and equipment access doors and panels.
- B. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases.

## 1.8 WARRANTY

- A. The switch manufacturer shall warrant to the owner that each switch and all internal components and wiring is free from defects in material, design and workmanship and will provide reliable performance for a period of two years from the date of shipment.
- B. Provide pricing as a separate line item for an extended warranty. Extended warranty shall be for an additional 2 years for a total of 4 years from shipment.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Provide products by the following:
  - 1. Solid dielectric insulated load break switches and resettable, electronically controlled vacuum fault interrupter ways:
    - a. ABB - Elastimold
    - b. G&W Electric, Inc. - Trident
    - c. Eaton - ISG-SD

### 2.2 MANUFACTURED UNITS

- A. Description: Factory assembled and tested, and complying with IEEE C37.20.1.
- B. Ratings: Suitable for application in 3-phase, 60-Hz, and grounded-neutral system.
- C. System Voltage: 12.47 kV (nominal), 17 kV (max), 95 kV BIL

### 2.3 15KV PAD MOUNTED SOLID DIELECTRIC SWITCHES

- A. The pad-mounted gear shall be in accordance with the one-line diagram and shall conform to the following specification.
- B. 15kV rated padmount solid dielectric switches rated for 600A, they will contain vacuum fault interrupters.
  - 1. Voltage Class: 12.47 kV (nominal), 17 kV (max), 95 kV BIL
  - 2. Type: Padmount, Front Access
  - 3. Number of ways (configuration): 6
  - 4. Main Bus:
    - a. Continuous Current, Amperes – 600
    - b. Short-Circuit Current, Amperes, RMS, Symmetrical – 16,000
  - 5. Fault Interrupters
    - a. Continuous Current, Amperes - 600
    - b. Live Switching: Load Splitting and Load Dropping Current, Amperes – 600
    - c. Short-Circuit Interrupting Current, Amperes, RMS, Symmetrical – 16,000
  - 6. The momentary and two-time duty-cycle fault-closing ratings of switches, momentary rating of bus, interrupting ratings of fuses, and one-time duty-cycle fault-closing

capabilities of fuses with integral load interrupters shall equal or exceed the short-circuit ratings of the pad-mounted gear.

7. Bushings:

- a. Fault Interrupters: Provide 600-ampere bushing adapters with threaded studs.
- b. All bushings and bushing-well adapters shall be replaceable in the field.
- c. Bushing and bushing-well adapters shall have a semi-conductive coating.
- d. Bushing and bushing-well adapters shall have a separate drain wire or other equivalent means to ensure they are solidly grounded to the switchgear assembly.

8. Minimum Bushing Height: 24"

9. Enclosure: 11-gauge mild steel enclosure with 30" cable compartment, painted Munsell Green – Munsell 7GY3.29/1.5.

10. Overcurrent Control

- a. Provide microprocessor-based overcurrent control to initiate fault interruption for all ways.
- b. Mount control in watertight enclosure. Control removable in field without taking gear out of service.
- c. Provide field-programmable control settings using a personal computer connected via data port to control. Locate data port accessible from exterior of enclosure.
- d. Provide integral current transformers for power and sensing for control.
- e. Minimum total clearing time (from initiation of fault to total clearing) for fault interruption shall be 40 milliseconds (2.4 cycles) at 60 Hz or 44 milliseconds (2.2 cycles) at 50 Hz.
- f. Control shall feature time-current characteristic (TCC) curves including standard E-speed, K-speed, coordinating-speed tap, coordinating-speed main curves, and relay curves per IEEE C37.112-1996. Coordinating-speed tap curves shall optimize coordination with load-side weak-link/backup current-limiting fuse combinations, and coordinating-speed main curves to optimize coordination with tap-interrupter curves.
- g. Provide standard E-speed curve phase-overcurrent settings ranging from 25E through 400E. Standard K-speed curve phase-overcurrent settings ranging from 25K through 200K. Coordinating-speed tap curve phase-overcurrent and independent ground-overcurrent settings ranging from 50 A through 400 A. Coordinating-speed main curve phase-overcurrent and independent ground-overcurrent settings ranging from 100 A through 800 A

C. Certification of Ratings

- 1. The manufacturer of the pad-mounted gear shall be completely and solely responsible for the performance of the basic switch as well as the complete integrated assembly as rated.
- 2. The manufacturer shall furnish certification of ratings of the basic switch and/or the integrated pad-mounted gear assembly consisting of the switch in combination with the enclosure.

D. Compliance with Standards and Codes



1. The pad-mounted gear shall conform to or exceed the applicable requirements of the following standards and codes:
  - a. IEEE C37.74, IEEE C37.60, ANSI/IEEE 386, IEC60529, IEEE 592, ANSI/ IEEE C37.60.2 or equivalent, C37.60.1 or equivalent, IEC 60255-22, IEC 60255-21-1 or equivalent, IEC 60255-21-2 or equivalent. All portions of ANSI C57.12.28, covering enclosure integrity for pad-mounted equipment.
  - b. All portions of ANSI, IEEE, and NEMA standards applicable to the basic switch components.
- E. The switch shall be a dead-front design. The operating mechanism housing shall be stainless steel with a viewing window for verification of vacuum interrupter contact position. The mechanism housing shall be painted light grey. Operating handles shall be padlockable and adaptable to keylock schemes. The operating shaft shall be stainless steel providing maximum corrosion resistance.
- F. The solid dielectric modules must be coated with a semi-conductive layer of epoxy, providing a completely dead front device. The semi-conductive layer must be tested to IEEE 592 to ensure it can carry fault current to ground so as to ensure operator safety.
- G. All ways of the switch shall be equipped with an integral blade type disconnect switch incorporated within the solid dielectric module to provide a true visible break. The visible break switch shall be in series with the vacuum interrupter and provide a clear three-phase visible break of the circuit. The visible break must be easily seen through a viewing window molded as an integral part of each solid dielectric module.
- H. The switch shall interrupt all load and fault currents within the vacuum bottle. The switch shall include two mechanical interlocks, one external and one internal, for safe operation.
- I. Each switch mechanism shall consist of three individual vacuum bottle assemblies mechanically linked to an operating mechanism.
- J. Fault Interrupter Ways
  1. Fault interrupter ways shall use a vacuum interrupter in series with a manually operated two-position isolating disconnect for three-pole load switching of 600- ampere circuits and fault interrupting through 16 kA symmetrical at 17.5 kV.
  2. Fault interrupters shall be trip-free (the opening spring is charged when the closing spring is charged) and will open the fault interrupter automatically based on the TCC curve in the overcurrent control.
- K. The switch shall be designed for front access to cables and operators.
- L. The switch shall have parking stands for all bushings.
- M. Provide adequate depth for bushings rated 600 A continuous to accommodate two 600 A elbows mounted piggyback, encapsulated surge arresters or grounding elbows mounted on 600 A elbows having 200 A interfaces.

- N. The padmount enclosure shall be 11 gauge galvanized steel with 27" cable compartment. It shall meet ANSI C37.72 & C57.12.28 standards.
- O. The enclosure shall include ½" 13 NC grounding provisions.
- P. The switch shall have a 3" diameter circular viewing windows to verify OPEN/CLOSED indicator position with green/OPEN and red/CLOSED.

## 2.4 LABELING

- A. Hazard Alerting Signs
  - 1. The exterior of the pad mount enclosure (if furnished) shall be provided with "Warning--Keep Out--Hazardous Voltage Inside--Can Shock, Burn, or Cause Death" signs. Each unit of switchgear shall be provided with a "Danger--Hazardous Voltage--Failure to Follow These Instructions Will Likely Cause Shock, Burn, or Death" sign. The text shall further indicate that operating personnel must know and obey the employer's work rules, know the hazards involved, and use proper protective equipment and tools to work on this equipment. Each unit of switchgear shall be provided with a "Danger--Keep Away--Hazardous Voltage--Will Shock, Burn, or Cause Death" sign.
- B. Nameplates, Ratings Labels and Connections Diagrams
  - 1. Each unit of switchgear shall be provided with a nameplate indicating the manufacturer's name, catalog number, model number, date of manufacture, and serial number. Each unit of switchgear shall be provided with a ratings label indicating the following: voltage rating; main bus continuous rating; short-circuit rating; fault interrupter ratings including interrupting and duty-cycle fault-closing; and fault interrupter switch ratings including duty-cycle fault-closing and short-time.

## 2.5 SOURCE QUALITY CONTROL

- A. Before shipment of equipment, perform the following tests and prepare test reports:
  - 1. Production tests on circuit breakers according to ANSI C37.09, Section 5.
  - 2. Production tests on completed switchgear assembly according to IEEE C37.20.2, Section 5.3.
- B. Before shipment of equipment, perform the following tests and prepare test reports:
  - 1. Production tests on circuit breakers according to ANSI C37.09, Section 5.
  - 2. Production tests on completed switchgear assembly according to IEEE C37.20.2, Section 5.3.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine elements and surfaces to receive switchgear for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from switchgear units and components.

### 3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 26 Section "Identification of Electrical Systems."

### 3.4 CONNECTIONS

- A. Cable terminations at switchgear are specified in Division 26 Section "Medium-Voltage Cables."
- B. Install equipment grounding conductors for switchgear with ground continuity to main electrical ground bus.
- C. Tighten bus joints, electrical connectors, and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

### 3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor to engage a qualified 3rd party testing and inspecting agency to perform the following field tests and inspections and prepare test reports:
  - 1. Perform each related electrical test and visual and mechanical inspection stated in NETA ATS-2017 7.5.3. Certify compliance with test parameters. Optional tests are not required to be performed.
  - 2. Perform all tests recommended by manufacturer instructions.
    - a. Test grounding connections at each connection to the equipment ground bus with a low resistance ohmmeter with test leads connected to the bare ground conductors and the switch ground bus.
  - 3. Submit certified written report of results to Engineer and Owner.

- B. Remove and replace malfunctioning units and retest as specified above.

### 3.6 ADJUSTING

- A. Set field-adjustable protective-relay trip characteristics per settings provided by Engineer.

### 3.7 CLEANING

- A. On completion of installation, inspect interior and exterior of switchgear. Vacuum dirt and debris; do not use compressed air to assist in cleaning. Repair damaged finishes.

### 3.8 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain medium-voltage switchgear. Refer to Division 01 Section "Closeout Procedures."

END OF SECTION 261329.2