	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	Stillwater Utilities Authority, Oklahoma
---	---	--

NOTICE is hereby given that the STILLWATER UTILITIES AUTHORITY will receive sealed Bids for the following:

SUA BID #19-22/23
 DESCRIPTION: 69KV Circuit Breakers

You are invited to submit a Bid to supply the Goods and/or Services specified above. Invitations for Bid will be posted on the City's website at www.stillwater.org or a hardcopy may be obtained at:

City of Stillwater – City Clerk
 723 S. Lewis St.
 Stillwater, OK 74076

Bids must be received no later than 3:00 PM (CST) on February 15, 2023, and delivered to:

City Clerk's Office
 723 S. Lewis St.
 Stillwater, OK 74076

Bids must be sealed and either mailed or delivered. No faxed or emailed Bids will be considered. Bids received after the stated date and time **will not be accepted and will be returned to the Bidder unopened.**

If the vendor/contractor has additional terms and conditions that apply to the supply of goods/services offered, the terms and conditions **MUST** be submitted with the bid submission.


The Bid Packet consists of (1) this Notice of Invitation for Bid; (2) the Summary Sheet; (3) Form #1; (4) Form #2 Agreement, (5) Form #3; (6) Form #4; (7) Form #5; (8) Form #6; (9) the Instructions, Terms & Conditions for Bidders; (10) Special Requirements; (11) Technical Specifications; (12) Exhibit A- Detailed Bid Form; (13) Notice of No Bid

Use this Checklist to ensure you have properly read and completed all Forms.

- _____ Notice of Invitation for Bid
- _____ Summary Sheet
- _____ Form #1: Bidder Information Sheet (Must be completed)
- _____ Form #2: Agreement (Complete legal name in first paragraph & Notice provision in Sec.18. Original signature required.)
- _____ Form #3: Interest Affidavit
- _____ Form #4: Non-Collusion Affidavit (Original signature & notarization required)
- _____ Form #5: Affidavit of Claimant (Original signature & notarization required)
- _____ Form #6: Acknowledgement of Receipt of Addenda/Amendments (Must be completed & signed)
- _____ Instructions, Terms & Conditions for Bidder
- _____ Special Requirements (Offer Period; Insurance & Bonding; References)
- _____ Technical Specifications (Form TS, 337519.13, 337519.13 Data Sheet)
- _____ Exhibit A: Bid Form & 33751913 Bid Data Sheet (This is your Bid. It must be completed, or your Bid will be rejected)
- _____ Notice of No Bid

Form IFB

IMPORTANT NOTE: Write the Bid Number, Bid Description, and Bid Opening Date (as listed above) on the lower left corner of the outside of your Bid envelope. You must return the entire completed Bid Packet.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - SS SUMMARY SHEET
---	---	--

SUMMARY SHEET

Project Contact

If you have questions or need additional information, contact the Project Contact:

Kyle Muret / Chief Engineer, Stillwater Electric Utility
Kyle.Muret@stillwater.org
 please include BID #SUA 19-22/23 on the subject line

Bidder’s Notice of Intent to Submit a Bid

Email the Project Contact indicating your intent to Bid. Include BID #SUA 19-22/23 on the subject line of the email. You will receive an email response verifying your notice of intent to bid was received. The same procedure should be followed to request clarification, in writing, of any point in the Invitation for Bid.

Bidders are encouraged to contact the Project Contact by email if there is anything in these specifications that prevents you from submitting a Bid, or completing the Bid Packet. Questions or concerns must be received no later than 7 days prior to the bid opening date.

Issuing of Addenda

If you have emailed the Project Contact indicating your intent to Bid, you should also receive notice of any addenda issued. All addenda issued will be posted to the City of Stillwater’s website.

Pre-Bid Conference

If a Pre-Bid Conference will be held for this Invitation for Bid, information on that conference will be inserted below:

Date: _____ Time: _____

Location: _____

- Attendance at the Pre-Bid Conference is **REQUIRED** to submit a Bid
- Attendance is **NOT REQUIRED** to submit a Bid.

Bid Packet Submission

The City requires three (3) completed Bid Packets. (1 Original and 2 copies)
 Each must be clearly labeled on the front sheet indicating “Original” or “Copy”. If a copy on electronic media is also required, the box below will be checked.

- Electronic Copy also **REQUIRED**

Responses to this Invitation for Bid must be made on the Forms and documents listed on Page 1. The entire Bid Packet must be returned or your Bid may be rejected. DO not take exception to any portion of this Bid Packet. Do not make any entries except where required. Do not insert any other documents into the Bid Packet.

Bid Packet Submission

All Bid Openings are public and take place at 3:00 PM Wednesday. The Bid Openings are held in the City of Stillwater, Meeting Room 1112B, 723 S. Lewis St., Stillwater, Oklahoma, 74076.



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

**FORM #1
BIDDER
INFORMATION SHEET**

**FORM #1
BIDDER INFORMATION SHEET**

Bidder's Exact Legal Name: _____
(Must be Bidder's company name as reflected on its organizational documents, filed with the state in which bidder is organized; not simply a DBA)

State of Organization: _____

Bidder's Type of Legal Entity: (check one)

- Sole Proprietorship
- Partnership
- Corporation
- Limited Partnership
- Limited Liability Company
- Limited Liability Partnership

- Other: _____

Bidders Address: _____
Street City State Zip Code

Website Address: _____ **Email Address:** _____

Sales/Contractor Contact:

Name: _____
Street: _____
City: _____
State: _____
Phone: _____
Fax: _____
Email: _____

Legal or Alternate Contact:

Name: _____
Street: _____
City: _____
State: _____
Phone: _____
Fax: _____
Email: _____



INVITATION FOR BID
 SUA BID #19-22/23
 69KV Circuit Breakers
 Issued: January 21, 2023

FORM #2
STILLWATER UTILITIES
AUTHORITY CONTRACT

Stillwater Utilities Authority Contract
69KV Circuit Breakers
(SUA Bid #19-22/23)

This Contract made and entered into this ___ day of ___, 2023 by and between Stillwater Utilities Authority, Oklahoma, a public trust, (hereinafter "SUA") and _____, (hereinafter "Contractor").

WITNESSETH:

WHEREAS, SUA has caused to be prepared in accordance with law, certain requirements, specifications and other documents for the work hereinafter described and has approved and adopted all of said contract documents, and has issued an Invitation for Bid and solicited sealed bids and has received sealed bids for the furnishing of all labor and materials for the 69KV Circuit Breakers as outlined and set out herein in accordance with the terms and provisions of this Contract; and

WHEREAS, SUA, in the manner provided by law, has examined and canvassed the bids submitted and has selected the above-named Contractor for the 69KV Circuit Breakers, and has duly awarded this contract to said Contractor, for the sum named in the bid, to wit:

_____ (\$ _____)

NOW, THEREFORE, FOR AND IN CONSIDERATION OF THE MUTUAL AGREEMENTS AND COVENANTS HEREIN CONTAINED, THE PARTIES TO THIS CONTRACT HAVE AGREED, AND HEREBY AGREE, AS FOLLOWS:

1. Contract Documents. The Contractor shall, in a good and first class workmanlike manner, at its own cost and expense, furnish all labor, materials, tools and equipment required to complete said work in strict accordance with this contract and the following Contract Documents:

Entire Bid Packet for Bid# SUA BID #19-22/23; 69KV Circuit Breakers, Contractor’s Bid Form, Bid Bond, required warranties, certificates of insurance for employer’s liability, worker’s compensation, comprehensive general liability, property damage, and automobile liability;

all of which said documents are on file in the office of the City Clerk, City of Stillwater, Stillwater, Oklahoma, and are made a part of this contract as fully as if the same were herein set out at length. Any terms and conditions contained in the Bid Packet are hereby incorporated and made a part of this contract.

2. Term.

- a. Estimated contract award date: January, 2023
- b. Equipment Delivery Date(s) - Kinzie: September, 2023
 - a. If requested lead time for delivery cannot be met, supplier to provide alternative equipment delivery dates for review.
- c. Equipment Delivery Date(s) - Hospital: September, 2023
 - a. Alternatively, breakers for both stations may be delivered at the same time to Kinzie in order to reduce bid price and potential cost escalations.
- d. Estimated Substantial Completion: June, 2024

3. Payments to Contractor. SUA shall make payments to the Contractor in accordance with the Payment and Invoices provision of the Technical Specifications of the contract documents.

4. Acceptance of the Work. On completion of work, but prior to the acceptance thereof by SUA, it shall be the duty of SUA



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM #2
STILLWATER UTILITIES
AUTHORITY CONTRACT

to determine, by examination that said work has been completely and fully performed in accordance with the Contract Documents.

5. Intellectuals Property Indemnification by Contractor. Contractor agrees to indemnify, defend, and save harmless SUA and its officers, employees and agents from all suits and actions of any nature brought against them due to the use of patented, trademarked, or copyrighted appliances, products, materials, or processes provided by Contractor hereunder. Contractor shall pay all royalties and charges incident to such patents, trademarks, or copyrights.

6. Insurance Required. Contractor shall be required to purchase and maintain minimum insurance. See Insurance Requirements in the Bid Packet. Contractor is solely responsible for all costs associated with acquiring and maintaining insurance, including but not limited to, all premiums and deductibles.

7. No Confidentiality. Contractor understands and acknowledges that the City of Stillwater and SUA are subject to the Oklahoma Open Records Act (51 O.S. § 24A.1 et seq.) and therefore cannot assure the confidentiality of contract terms or other information provided by Contractor pursuant to this Agreement that would be inconsistent with its compliance with its statutory requirements thereunder.

8. Compliance with Laws. Contractor shall be responsible for complying with all applicable federal, state and local laws. Contractor is responsible for any costs of such compliance. Contractor shall take the necessary actions to ensure its operations in performance of this contract and employment practices are in compliance with the requirements of the Americans with Disabilities Act. Contractor certifies that it and all of its subcontractors to be used in the performance of this agreement are in compliance with 25 O.S. Sec. 1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O.S. Sec 1313 and includes, but is not limited to, the Free Employee Verification program (E-Verify) available at www.dhs.gov/E-Verify.

9. Right to Audit. The parties agree that books, records, documents, accounting procedures, practices, price lists or any other items related to the Services provided hereunder are subject to inspection, examination, and copying by Stillwater or its designees. Contractor shall retain all records related to this Agreement for the duration of this Agreement and for a period of three years following completion and/or termination of the contract. If an audit, litigation or other action involving such records begins before the end of the three-year period, the records shall be maintained for three years after the date that all issues arising out of the action are resolved or until the end of the three year retention period, whichever is later.

10. Governing Law and Venue. This Agreement is executed in and shall be governed by and construed in accordance with the laws of the State of Oklahoma without regard to its choice of law principals, which shall be the forum for any lawsuits arising under this Agreement or incident thereto. The parties stipulate that venue is proper in a court of competent jurisdiction in Payne County, Oklahoma and each party waives any objection to such venue. SUA does not and will not agree to binding arbitration of any disputes.

11. No Waiver. A waiver of any breach of any provision of this Agreement shall not constitute or operate as a waiver of any other provision, nor shall any failure to enforce any provision hereof operate as a waiver of the enforcement of such provision or any other provision.

12. Entire Agreement/No Assignment. This Agreement and any documents incorporated herein constitute the entire agreement of the parties and supersede any and all prior agreements, oral or otherwise, relating to the subject matter of this Agreement. This Agreement may only be modified or amended in a writing signed by both parties. Notwithstanding anything to the contrary stated herein, City/SUA does not agree to the terms of any future agreements, revisions or modifications that may be required under this Agreement unless such terms, revisions



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM #2
STILLWATER UTILITIES
AUTHORITY CONTRACT

or modifications have been reduced to writing and signed by both parties. Contractor may not assign this Agreement or use subcontractors to provide the Goods and/or Services without City/SUA prior written consent. Contractor shall not be entitled to any claim for extras of any kind or nature.

13. Equal Employment Opportunity. Each Vendor/Contractor agrees to comply with all applicable laws regarding equal employment opportunity and nondiscrimination.

14. Conflicts. Supply of goods and/or performance of services are subject to these General Terms and Conditions. To the extent that Contractor’s proposal has provided additional terms and conditions that may conflict with any provisions herein, the Stillwater General Terms and Conditions shall govern and control

Approved and accepted this _____ day of _____, 2023

CONTRACTOR _____

Name:
Title:

Approved and accepted this _____ day of _____, 2023

STILLWATER UTILITIES AUTHORITY,
a public trust


William H. Joyce, Chairman

ATTEST:

Teresa Kadavy, Secretary

Approved as to form and legality this _____ day of _____, 2023.

Kimberly Carnley, General Counsel

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM #3 INTEREST AFFIDAVIT
---	---	---

FORM #3
INTEREST AFFIDAVIT

STATE OF _____)

)ss.

COUNTY OF _____)

I, _____, of lawful age, being first duly sworn, state that I am the agent authorized by Seller to submit the attached Bid. Affiant further states that no officer or employee of the City of Stillwater either directly or indirectly owns a five percent (5%) interest or more in the Bidder's business or such a percentage that constitutes a controlling interest. Affiant further states that the following officer and/or employees of the City of Stillwater own an interest in the Bidder's business which is less than a controlling interest, either direct or indirect.

By: _____
 Signature

Printed Name: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20_____.


 Notary Public

My Commission Expires: _____

Notary Commission Number: _____

County & State where Notarized: _____

The Affidavit must be signed by and authorized agent and notarized

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM #4 NON-COLLUSION AFFIDAVIT
---	---	--

FORM #4
NON-COLLUSION AFFIDAVIT
 (Required by Oklahoma Competitive Bidding Act, 61 O.S. §138)

STATE OF _____)
)ss.
 COUNTY OF _____)

I, _____, of lawful age, being first duly sworn, state that:
 (Seller's Authorized Agent)

1. I am the authorized agent of Seller herein for the purpose of certifying facts pertaining to the existence of collusion between and among Bidders and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the Bid to which this statement is attached.
2. I am fully aware of the facts and circumstances surrounding the making of Seller's Bid to which this statement is attached, and I have been personally and directly involved in the proceedings leading to the submission of such Bid; and
3. Neither the Seller nor anyone subject to the Seller's direction or control has been a party:
 - a. to any collusion among Bidders in the restraint of freedom of competition by agreement to Bid at a fixed price or to refrain from bidding,
 - b. to any collusion with any municipal official or employee as to quantity, quality, or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - c. in any discussions between Bidders and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract, nor

I certify, if awarded the contract, whether competitively bid or not, neither the contractor nor anyone subject to the business entity's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the City of Stillwater any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement relates.

By: _____
 Signature

Printed Name: _____

Title: _____


Subscribed and sworn to before me this _____ day of _____, 20_____.

 Notary Public

My Commission Expires: _____

Notary Commission Number: _____

County & State where Notarized: _____

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM #5 AFFIDAVIT OF CLAIMANT
---	---	--

FORM #5
AFFIDAVIT OF CLAIMANT

STATE OF _____)

COUNTY OF _____)

The undersigned person, of lawful age, being first duly sworn on oath, says that all invoices to be submitted pursuant to this agreement with the Stillwater Utilities Authority will be true and correct. Affiant further states that the work, services, or material furnished will be completed or supplied in accordance with the plans, specifications, orders, requests, and/or contract furnished or executed by the affiant. Affiant further states that (s)he has made no payment directly or indirectly to any elected official, officer, or employee of the City of Stillwater or any public trust where the City of Stillwater is a beneficiary, of money or any other thing of value to obtain payment of the invoice of procure the contract or purchase order pursuant to which an invoice is submitted. Affiant further certifies that (s)he has complied with all applicable laws regarding equal employment opportunity.

Company: _____

Remit to Address: _____

City/State/Zip: _____

Print Name: _____

Signature: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.


Notary Public

My Commission Expires: _____

Notary Commission Number: _____

County & State where Notarized: _____

The Affidavit must be signed by and authorized agent and notarized

	<p align="center">INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023</p>	<p align="center">FORM # 6 ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA/AMENDMENTS</p>
---	---	--

FORM #6
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA/AMENDMENTS

I hereby acknowledge receipt of the following addenda or amendments and understand that such addenda or amendments are incorporated into the Bid Packet and will become a part of any resulting contract.


List Date and Title/Number of all addenda or amendments: (Write "None" if applicable)

Sign Here  _____

Printed Name: _____

Title: _____

Date: _____

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

INSTRUCTIONS, TERMS & CONDITIONS FOR BIDDERS

1. PURCHASING AUTHORITY.

SUA issues this Invitation for Bid pursuant to Stillwater City Code, Ch. 2, Art. VI, §2-608, the provisions of which are incorporated herein.

2. DEFINITIONS.

The following terms have the following meanings when used in the documents comprising this Bid Packet.

- A. **“Acceptance”** with respect to a Bid shall mean Stillwater’s selection of a Bid and award of a contract to the Bidder/Contractor.

- B. **“Acceptance”** with respect to delivery of Goods and/or Services provided for under a Purchase Agreement shall mean Stillwater’s written acknowledgement that Contractor has satisfactorily provided such Goods and/or Services as required.

- C. **“Addenda” “Addendum”** or **“Amendment(s)”** shall mean a calcification, revision, addition, or deletion to this Invitation for Bid by the City of Stillwater which shall become a part of the agreement between the parties.

- D. **“Authorized Agent”** means an agent who is legally authorized to bind the Bidder/Contractor under the law of the State in which Bidder/Contractor is legally organized. An Authorized Agent must sign all documents in the Bid Packet on behalf of the Bidder. Under Oklahoma law, the Authorized Agent for each of the following types of entities is as stated below:
 - **Corporations** – the president, vice president, board chair, or board vice chair can sign; others can sign if they have and provide to the City (i) a corporate resolution giving them authority to bind the Contractor; and (ii) a recent corporate secretary’s certificate indicating the authority is still valid.

 - **General Partnerships** – any partner can sign to bind all partners.

 - **Limited Partnerships** – the general partner must sign.

 - **Individuals** – no additional authorization is required, but signatures must be notarized.

 - **Sole Proprietorship** – the owner can sign. Any other person can sign if (s)he provides a recent Power of Attorney, signed by the owner, authorizing him/her to bind the sole proprietorship.


 - **Limited Liability Company (LLC)** – The manager as named in the Operating Agreement can sign. Any person authorized by the Operating Agreement or a member can sign providing the person submits a copy of the authorization with a certificate of members indicating the authorization is still valid.

Entities organized in states other than Oklahoma must follow the law of the State in which they are organized.

- E. **“Bid”** means the Bidder’s irrevocable offer to provide the requested Goods and/or Services set forth in Exhibit A and any additional materials or information the Bidder chooses to submit to support the Bid.

- F. **“Bidder”** means the legal entity which submits a Bid for consideration by the City of Stillwater in accordance with the Invitation for Bid.

- G. The Bid Packet consists of (1) this Notice of Invitation for Bid; (2) the Summary Sheet; (3) Form #1; (4) Form #2 Agreement; (5) Form #3; (6) Form #4; (7) Form #5; (8) Form #6; (9) the Instructions, Terms & Conditions for

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

Bidders; (10) Special Requirements; (11) Technical Specifications; (12) Exhibit A- Detailed Bid Form; (13) Notice of No Bid

- H. **“Bid Submission Date”** shall mean the last date by which the City of Stillwater will accept Bids under an Invitation for Bid.
- I. **“City”** shall mean the City of Stillwater, Oklahoma.
- J. **“Contractor”** shall mean the Bidder whose Bid the SUA selected and awarded a contract.
- K. **“Days”** shall mean calendar days unless specified otherwise.
- L. **“Primary Contractor”** shall mean the Contractor whose Bid the SUA selected as the principal supplier of the Goods and/or Services required under this Agreement.
- M. **“Project Contact”** shall mean the City’s employee assigned by SUA to serve as the contact person for Bidders/Contractors responding to Invitations for Bid or completing contracts herein.
- N. **“Purchasing Division or Office”** shall mean the City of Stillwater Purchasing Division, 723 S. Lewis St., Stillwater, Oklahoma, 74076.
- O. **“Secondary Contractor”** shall mean the Contractor whose Bid the SUA selected as a back-up supplier in the event that the Primary Contractor is unable to provide all the Goods and/or Services required.
- P. **“You” or “Your”** shall mean the Bidder responding to this Invitation for Bid or the Contractor whose Bid the SUA selected and awarded a contract.
- Q. **“Website”** shall mean the City of Stillwater’s website: www.stillwater.org

3. QUESTIONS REGARDING INVITATION FOR BID.


Questions regarding any portion of this Invitation for Bid must be submitted in writing (sent by mail or email) to the Project Contact indicated on the Summary Sheet herein. You should submit questions as early as possible and preferably before the Pre-Bid Conference, if required. Questions and concerns must be received no later than 14 days (14) days prior to the Bid Packet due date. Any oral responses to questions before the contract is awarded are not binding on the SUA. At SUA’s discretion, any information or clarification made to you may be communicated to other Bidders that notified the City of their intent to Bid if appropriate to ensure fairness in the process for all Bidders. You must not discuss questions regarding the Invitation for Bid with anyone other than the Project Contact or other Purchasing Division staff or your Bid may be disqualified, any contract recommendation or Acceptance may be rescinded, or any contract may be terminated and delivered Goods returned at your expense and any payments made refunded.

4. ORAL STATEMENTS.

No oral statements by any person shall modify or otherwise affect the provisions of this Invitation for Bid and/or any contract resulting therefrom. All modifications, addenda or amendments must be made in writing by the City of Stillwater Purchasing Division.

5. EXAMINATION BY BIDDERS.

You must examine the specifications, drawings, schedules, special instructions, and all documents in this Bid Packet prior to submitting any Bid. Failure to examine such documents and any errors made in the preparation of such Bid are at your own risk.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

6. ADDENDA OR AMENDMENTS TO INVITATIONS FOR BID.

SUA may addend or amend its Invitations for Bid at any time before the Bid Submission Date, and any such addenda or amendments shall become a part of this Agreement. City will attempt to send a notification (by email) of any addenda or amendments to those Bidders who have responded to the Project Contact with their intent to respond to the Invitation for Bid. However, it is your responsibility to inquire about any addenda or amendments by signing and returning Form #6 – Acknowledgement of Receipt of Addenda/Amendments with your Bid. SUA may reject any Bid that fails to acknowledge any addenda or amendments.

7. SPECIFICATIONS / DESCRIPTIVE TERMS / SUBSTITUTIONS.

Unless the term “no substitute” is used, references to a brand name, manufacturer, make, or catalogue designation in describing an item in this Bid Packet does not restrict you to that brand or model. This Invitation for Bid may make such referenced to indicate the type, character, quality and/or performance equivalent of the item desired. However, you are required to furnish the exact item described in your Bid unless a proposed substitution is clearly noted and described in the Bid.

The parties recognize that technology may change during the period Bids are solicited and subsequent contracts are performed. Therefore, SUA may at its option accept changes or substitutions to the specifications for Goods of equal or better capabilities at no additional cost to SUA. In the case of existing contracts, you shall give the City thirty (30) days advance notice in writing of any such proposed changes or substitutions. SUA shall determine whether such items are acceptable as well as any proposed substitute.

All Goods shall be new unless otherwise so stated in the Bid. Any unsolicited alternate Bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of this Bid may be considered non-responsive and the Bid rejected.

8. PRICE / DISCOUNTS.


Prices shall be stated in the units and quantity specified in the Bid Packet documents. In case of discrepancy in computing the Bid amount, you guarantee unit prices to be correct and such unit prices will govern. Prices shall include transportation, delivery, packing and container charges, prepaid by you to the destination specified in the specifications. Discounts for prompt payment will not be considered in Bid evaluations, unless otherwise specified. However, offered discounts for prompt payment will be taken if payment is made within the discount period.

9. NO INDEMNIFICATION BY SUA.

Contractor understands and acknowledges that SUA is funded by its taxpayers to operate for the benefit of its citizens. Accordingly, and pursuant to Oklahoma law, SUA shall not indemnify nor hold Contractor harmless for loss, damage, expense or liability arising from or related to this Agreement, including any attorney’s fees and costs. In addition, Contractor shall not limit its liability to SUA for actual loss or direct damages for any claim based on a material breach of this Agreement and the documents incorporated herein. SUA reserves the right to pursue all legal and equitable remedies to which it may be entitled. SUA will not agree to binding arbitration of any disputes.

10. DELIVERY.

- A. All prices quoted shall be based on delivery F.O.B. Stillwater, Oklahoma or to any other points as may be designated in the Technical Specifications, with all charges prepaid by Contractor to the actual point of delivery. Bids must state the number of days required for delivery under normal conditions.
- B. Price shall include cost to deliver to the Project Site, including packing per good practice and transport insurance.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

- C. Delivery of the circuit breaker and circuit breaker accessories shall be by Supplier to the Project Site.
- D. Risk of loss shall pass to the Owner upon Owner's acceptance of the Goods.
- E. Title to the Goods shall pass to the Owner upon the Owner's acceptance of the Goods.
- F. Goods shall not be manufactured or delivered without prior approval of the required Submittals.


11. TAXES.

The City of Stillwater is exempt from federal excise and state sales taxes and such taxes shall not be included in the Bid prices.

12. BID SUBMISSION.

The Bid Packet forms must be prepared in the name of the Bidder and properly executed by an Authorized Agent with full knowledge and acceptance of all provisions, in ink and notarized. Bids may not be changed or withdrawn after the deadline for submitting Bids (the "Bid Submission Date"). A Bid is an irrevocable offer and when accepted by SUA (as evidenced by SUA's execution of the Purchase Agreement) shall constitute a firm contract.

- A. **BIDS MUST BE SUBMITTED ONLY ON THE BID PACKET FORMS AND SIGNED BY AN AUTHORIZED AGENT. THE ENTIRE BID PACKET MUST BE RETURNED AS RECEIVED WITH ALL FORMS COMPLETED. YOU MAY ATTACH, AFTER "EXHIBIT A", ANY DOCUMENTS NECESSARY TO COMPLETELY AND ACCURATELY RESPOND TO THE REQUEST. BIDS MUST BE IN STRICT CONFORMANCE WITH ALL INSTRUCTIONS, FORMS, AND SPECIFICATIONS CONTAINED IN THIS BID PACKET.**
- B. Sealed Bids may be either mailed or delivered, but must be received at:
 City of Stillwater – Office of the City Clerk
 723 S. Lewis St. / PO Box 1449
 Stillwater, OK 74076-1449
- C. Bids will be accepted at the above address from 8:00 AM to 5:00 PM (CST), Monday through Friday except for City holidays. City is not responsible for failure of Bids to be received by the City Clerk's Office prior to the due date and time. Any bid received by the City Clerk more than ninety-six (96) hours, excluding Saturdays, Sundays and holidays, before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered and shall be returned unopened to the bidder submitting same.
- D. Late Bids will be **rejected**. The Project Contact, in his sole discretion, may make exceptions only for the following reasons:
 - City Hall closed for business for part or all of the day on the date the response was due.
 - If the City deems it appropriate due to large-scale disruptions in the transportation industry that may have prevented delivery as required.
 - If documented weather conditions caused the late delivery. You must provide documentation of such weather to the satisfaction of the Project Contact.
- E. **City of Stillwater/SUA will NOT accept faxed Bids.** No exceptions.
- F. The City of Stillwater/SUA is not responsible for any of your costs in preparing the Bid response, attending a Pre-Bid Conference, if required, or any other costs you incur, regardless of whether the Bid is submitted, accepted, or rejected.
- G. All Bids must be securely sealed and plainly marked with the Bid Number, Bid Title, and Bid Opening Date on the lower left corner of the outside of the Bid envelope. Bidder's name and address must also be clearly indicated on the envelope.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

- H. If submitting multiple options to the Invitation for Bid, each will be separately considered separately requiring each response to be complete and accurate. Each option must be clearly marked as “Option 1 of 3”, “Option 2 of 3”, etc.
- I. The number of copies you must submit is listed on the Summary Sheet in the front of the Bid Packet. At a minimum, there will be one (1) original, clearly labeled as such (“ORIGINAL”) on the Bid Packet cover page, and two (2) copies, clearly labeled as such (“COPY”) on the Bid Packet cover page.
- J. Multiple boxes or envelopes are permissible but must not weigh more than fifty pounds (50 lbs.). Each box must be clearly labeled as instructed herein and numbered (i.e. “Box 1 of 3”, “Box 2 of 3”, etc.). The original must be in Box #1.
- K. The original and all copies (either paper or electronic) must be identical in all respects. Bids must be completed and submitted in ink or typewritten. Bids written in pencil will be rejected. Any corrections made to the Bids must be in initialed in ink.

13. BID REJECTION OR WITHDRAWAL.

- A. The City of Stillwater/SUA may reject any or all Bids, in whole or in part.
- B. **A Bid may be rejected if it contains additional commercial terms, conditions, or agreements, beyond sections where input is requested from the bidders, that modify the requirements of this Invitation for Bid or attempts to limit Bidder’s liability to the City of Stillwater/SUA.**
- C. A Bid may be rejected if Bidder is currently in default to City of Stillwater/SUA or any other contract or has an outstanding indebtedness to the City of Stillwater/SUA of any kind.
- D. City/SUA reserves the right to waive any formalities or minor irregularities, defects, or errors in Bids.
- E. Bid withdrawal may only be accomplished by an Authorized Agent requesting withdrawal in person at the City Clerk’s office before the City’s close of business on the Bid Submission Date.

14. BID RESULTS.


A tabulation of Bids received will be made available on the City’s website generally within five (5) working days after the Bid Opening Date. After a contract award is recommended by SUA, a copy of the Bid summary will be available in the City Clerk’s office. Bid results are not provided in response to telephone or email inquiries.

15. PURCHASE ORDER.

In the event the successful Bid is for an amount less than Fifty Thousand Dollars (\$50,000), and it is determined by the City of Stillwater/SUA to be in the best interest of the City/SUA, the City/SUA may in its sole discretion, issue a Purchase Order rather than execute the Purchase Agreement to purchase the Goods. If a Purchase Order is issued, however, the terms and conditions of the Bid Packet documents, including the Purchase Agreement, will govern the transaction and be enforceable by the City of Stillwater/SUA and Bidder/Contractor.

16. CONTRACT AWARD.

If a contract is awarded, it will be awarded to the Bidder that the City of Stillwater/SUA determines is the lowest responsible Bidder meeting specifications. Such Bid analysis will consider price and other factors, such as Bidder’s qualifications and financial ability to perform the contract, as well as operating costs, delivery time, maintenance requirements, performance data, history of contract relations with the City of Stillwater/SUA, and guarantees of materials and equipment, as applicable. A complete list of factors that are considered is set forth in the City of Stillwater Purchasing Manual. Unless otherwise noted, the City of Stillwater/SUA reserves the right to award a contract by item, one or more groups of items, or all items in the Bid, whichever is in the City/SUA’s best interest.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

17. IRS FORM W-9.

If the City of Stillwater/SUA selects your Bid and awards a contract to you, you will have ten (10) days from notification of award to provide the City of Stillwater with your complete IRS Form W-9.

18. NOTICE TO PROCEED.

If the City of Stillwater/SUA accepts your Bid and executes the Agreement, you shall not commence work until authorized to do so by the Project Contact or his representative. Receipt of a Purchase Order from the City of Stillwater is notice to proceed.

19. PAYMENTS.


Invoices must be submitted to SUA in accordance with the bid requirements. Payments will be made Net 30 days after receipt of a properly submitted invoice or the City of Stillwater's Acceptance of the Goods and/or Services, whichever is later, unless the City of Stillwater decides to take advantage of any prompt payment discount included in the Bid.

20. CLAIMS.

Except where expressly stated otherwise in this Purchase Order, no claim for extra compensation or for additional time for performance of the Work shall be valid unless Supplier shall first have provided written notice of such claim to Purchaser within three (3) Days of the start of the event giving rise to the claim. Such notice is a material consideration of this Purchase Order and if Supplier fails to provide Purchaser such notice within such time frame, Supplier's claim shall be deemed waived.

21. WARRANTY

- A. The Supplier warrants that the goods shall be new, fit for the intended purpose per SUA's specifications and free of defects in design, workmanship and materials. Supplier also warrants to the Owner that for elements of any Work for which this Contract does not establish express standards of quality and fitness, such Work shall be in accordance with good industry practices and standards for the specific application.
- B. Warranty Period shall be for a five (5) year period starting after Owner Acceptance Date of the breaker.
 - a. Alternatively, Supplier may provide warranty terms for breaker and supplied materials that differ than the duration requested above. Minimum warranty period shall be one (1) year.
- C. If any Work fails to comply in any respect to the warranties set forth herein and Supplier has been given written notice of such noncompliance within the Warranty Period, Supplier shall, at its sole expense, promptly perform all repair work.
- D. Supplier shall be responsible for all costs to perform repair work including, without limitation, all freight and insurance charges. If Supplier does not commence correction of the repair work within two (2) Days following receipt of written notice from the Owner or if Supplier does not proceed diligently to complete the repair work, the Owner shall, at its sole discretion, have the right to perform some or all of the necessary Repair Work to remedy the defect, or have third parties perform the necessary repair work. In the event the Owner rejects the Goods and chooses to obtain replacement or substitute Goods or Work from someone other than Supplier, Supplier shall also be responsible to pay the Owner the increased costs, if any, between the Contract price for such Goods or Work and the cost to the Owner of obtaining the replacement or substitute Goods including, without limitation, costs incurred by the Owner to manufacture, produce or provide such Goods or Work; or engage other persons to manufacture, produce or provide such Goods or Work. The Owner shall be entitled to set off all costs incurred by the Owner related to such Repair Work from amounts owed to Supplier or to back charge and invoice Supplier for such cost.
- E. Supplier shall bear the risk of loss or damage for Work requiring repair work during the period of such repair work. If any Work must be removed from the Site, transportation charges associated with any repair work shall be borne by Supplier. Supplier shall revise any and all drawings and other documents, as appropriate; to reflect any changes or modifications made during repair work. Work required to be corrected, repaired or replaced shall be subject to the warranties of this Contract in the same manner and to the same extent as Work originally delivered under this Contract.
- F. The foregoing warranties shall survive the Owner's inspection, acceptance, use and subsequent dispossession or sale of the Work.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

22. LIQUIDATED DAMAGES

- A. Liquidated damages are excluded as a part of this contract.

23. INSPECTION AND TESTING

- A. The Owner reserves the right to review Supplier's quality assurance and quality control procedures and to inspect and witness all Supplier's operations and tests.
- B. Supplier shall notify the Owner at least thirty (30) Days in advance when portions of the Work are ready for inspection or testing in accordance with the Supplier's inspection and test plan as approved by the Owner.
- C. Failure to inspect and accept or reject the Work shall not relieve the Supplier from responsibility for compliance with the Contract requirements nor impose liability on the Owner. The Owner reserves the right to reject Work that is unsatisfactory, faulty, or defective or does not conform to the requirements of the Contract.
- D. Supplier shall carry out factory tests of the breakers in accordance with Supplier's procedures for such tests and in accordance with the Specifications. Owner and its representatives including the Engineer shall have the right to witness such factory tests. Date and time of such tests shall be communicated to Owner no later than thirty (30) Days in advance. Supplier shall bear the cost of such tests, but Owner shall bear the cost for its representative to attend them.

24. COORDINATION


A. DEFINITIONS AND TERMINOLOGY

a. TERMINOLOGY:

- i. Whenever used in the Contract Documents, the following terminology shall have the intent and meaning specified below:
 - 1. The words "as indicated" refer to the Drawings and "as specified" refer to the remaining Contract Documents.
 - 2. The terms "responsible" or "responsibility" mean that the party to which the term applies shall assume all responsibilities thereto.
 - 3. The term "approve", when used in response to Submittals, requests, applications, inquiries, reports and claims by Supplier, will be held to limitations of Engineer's responsibilities and duties or. In no case will "approval" by Engineer be interpreted as a release of Supplier from responsibilities to fulfill requirements of Contract Documents.
 - 4. When applied to Equipment and Materials, the words "furnish", "install", and "provide" shall mean the following:
 - a. The word "provide" shall mean to furnish, pay for, deliver, assemble, install, adjust, clean and otherwise make Materials and Equipment fit for their intended use.
 - b. The word "furnish" shall mean to secure, pay for, deliver to Site, unload and uncrate Equipment and Materials.
 - c. The word "install" shall mean to assemble, place in position, incorporate in the Work, adjust, clean, and make fit for use.
 - d. The phrase "furnish and install" shall be equivalent to the word "provide."

25. RECORD DOCUMENTS:

- A. Supplier shall supply and Owner shall maintain in a safe place at the Site one record copy of all drawings, specifications, addenda, written amendments, change orders, work change directives, field test records, field orders, and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Submittals shall be available to Engineer for reference. Upon completion of the Work, these record documents and Submittals shall be delivered to Engineer for Owner.
- B. Receipt and acceptance of record documents will be a prerequisite for final payment on the Contract.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

26. CONTINUING THE WORK:

- A. Supplier shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with Owner. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by the Contract Documents or as Supplier and Owner may otherwise agree in writing.

27. TERMINATION


- A. Termination for Cause:
 - a. The Owner may terminate this Contract for cause, in whole or in part, by written notice to Supplier if Supplier: fails to deliver the Goods or to perform the Work within the time specified in this Contract; fails to tender conforming Goods; fails to obtain proper licenses, permits and registrations; fails to obtain and maintain required insurance coverage; fails to make progress so as to endanger timely performance of this Contract; fails to comply with the site safety requirements; violates any applicable laws; or fails to provide adequate assurances of performance.
 - b. If, after termination, it is determined that Supplier was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the Contract had been terminated for the convenience of the Owner.
 - c. Upon issuance of a written notice of termination for cause, Supplier shall proceed as required by this paragraph and the Owner shall be entitled to the rights set forth herein. Supplier shall stop all work hereunder unless otherwise specified in the notice of termination. The Owner shall not be obligated to make any further payments for the Work. If the Owner has revoked acceptance, then such Work shall be treated as having not been accepted. The Owner shall not be required to accept the tender of any Work that Owner has elected to terminate or cancel. The Owner may take possession of any specialty equipment or specialty tools necessary for completion of the Work. The Owner may complete the performance of this Contract by such means as the Owner selects or may engage any others to complete the performance of this Contract and Supplier shall be responsible for any costs in excess of the Contract value incurred by the Owner in so doing. Any amounts due Supplier for Work completed by Supplier prior to such cancellation shall be subject to offset against such additional costs incurred by the Owner in completing the Work and any other damages incurred by the Owner as a result of Supplier's default.
- B. Termination for Convenience.
 - a. Upon at least three (3) Days written notice to Supplier specifying the extent to which the Contract is terminated, the Owner shall have the right to terminate this Contract or any portion thereof with respect to Goods not yet shipped or Work not yet performed, without liability and in addition to its other rights and remedies, at any time and for any reason.

28. CHANGES


- A. The Owner shall have the right, at any time, to make changes in the Contract that the Owner may deem desirable.
- B. If the Owner issues a directive that causes a material increase in Supplier's cost or time for performance, Supplier shall notify the Owner in writing within three (3) Days from the date of Supplier's receipt of the Owner's directive, and subject to such proper notice, an equitable adjustment in the price or time of performance shall be mutually agreed upon between the Owner and Supplier. Agreement to such adjustment shall constitute a waiver of all claims by Supplier arising out of or related to the change.
- C. Despite any pending dispute with respect to the Contract, Supplier shall proceed, upon written notice from the Owner with the performance of all Work or changes as directed by the Owner.

29. DELAYS/FORCE MAJEURE

- A. In no event shall City/SUA be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes, acts of God, or the declaration of a federal, state, or local emergency. In the event of a declared federal, state, or local emergency affecting Stillwater, Oklahoma, the City Manager shall have the unilateral right to suspend any or all services provided for under this Contract or to terminate this Contract without any liability whatsoever. In the event of termination, this Contract shall not be revived by the expiration of the

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TC TERMS & CONDITIONS FOR BIDDER
---	---	--

declared emergency. In the event of suspension of any or all services during a time of declared emergency and upon expiration of said declared emergency, the parties may mutually agree in writing to resume services.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - SR SPECIAL REQUIREMENTS
---	---	---

EXCEPTION NOTICE

IF THE VENDOR/CONTRACTOR HAS ADDITIONAL TERMS AND CONDITIONS THAT APPLY TO THE SUPPLY OF GOODS/SERVICES OFFERED, THE TERMS AND CONDITIONS **MUST** BE SUBMITTED WITH THE BID SUBMISSION BY COMPLETING THIS SECTION OR ATTACHING TO THIS EXCEPTION NOTICE.

SUA will review all exceptions and/or additional terms and conditions. Exceptions and/or additional terms and conditions are not approved until approved by SUA in writing.

Unless otherwise noted here, bidder’s proposal shall be deemed to agree and comply with all terms, conditions, specifications, and requirements in the bid documents.

An “exception” is defined as the bidder’s inability or unwillingness to meet a term, condition, specification, or requirement in the manner specified in the bid documents.

All exceptions taken must be identified and explained in writing with your bid and must specifically reference the relevant section(s) of the bid documents. If the bidder provides an alternate solution when taking an exception to a requirement, the benefits of this alternative solution and impact, if any, on any part of the remainder of the bidder’s response, must be described in detail.

State exceptions below. If no exceptions, state “NONE”. Provide additional pages in this format if needed. Provide supporting documentation for all exceptions listed as an attachment to your bid.

No.	Exceptions
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

Submitted By:


Bidder: _____

Company: _____

Address: _____

Authorized Signature: _____

Date: _____

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - SR SPECIAL REQUIREMENTS
---	---	---

SPECIAL REQUIREMENTS

1. IRREVOCABLE OFFER PERIOD.

You understand and acknowledge that the offer submitted as your Bid is firm and irrevocable from the City/SUA's close of business on the Bid Submission Date until **60 days** after the Bid Opening Date.

2. GENERAL LIABILITY / INDEMNIFICATION.

You shall hold the City of Stillwater/SUA harmless for any loss, damage or claims arising from or related to your performance of the Contract. You must exercise all reasonable and customary precautions to prevent any harm or loss to all persons and property related to the Contract. You agree to indemnify and hold the City of Stillwater/SUA harmless from claims, demands, causes of actions or suits of whatever nature arising out of the Goods and/or Services, labor, or materials furnished by you or your subcontractors under the provisions of the Bid Packet documents.

3. LIENS.

No liens of any kind shall exist against property of the City of Stillwater/SUA. Bidder shall deliver all Goods to the City of Stillwater/SUA free and clear of liens. Delivery by Bidder to City of goods which are subject to liens shall be a material breach of the Contract and all damages and costs incurred by the City/SUA as a result of the existence of such liens shall be paid to the City/SUA by returning such goods and reimburse the City/SUA for any payments made for such goods.

4. INSURANCE.


If the box is checked "Yes," the following insurance is **required**:

YES **NO**

Bidder and its subcontractors must obtain at Bidder's expense and keep in effect during the term of the Contract, including any renewal periods, policies of General Liability insurance in the minimum amounts set forth below and Worker's Compensation insurance in the statutory limits required by law.

Worker's Compensation	Statutory Limits
Employer's Liability	\$500,000 aggregate comprehensive
General Liability	\$1,000,000 per occurrence
Property Damage	\$25,000 per occurrence
Property Damage	\$1,000,000 aggregate
Auto Liability	\$125,000 each person for bodily injury
Auto Liability	\$25,000 each occurrence for property damage

The City of Stillwater/SUA and Burns & McDonnell Engineering Company, Inc shall be named an additional insured on the Comprehensive General Liability policy in amounts equal to the liability limits for political subdivisions set forth in the Oklahoma Governmental Tort Claims Act, 51 O.S. §151, et seq. Provided, however, this shall not preclude the Contractor from carrying insurance in amounts exceeding said liability limits so long as the City/SUA is not named as an additional insured in any amount in excess of said statutory liability limits.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - SR SPECIAL REQUIREMENTS
---	---	---

BIDDER’S INSURER MUST BE AUTHORIZED TO TRANSACT BUSINESS IN THE STATE OF OKLAHOMA.

You will have ten (10) days after notification that your Bid was selected for contract award by the City of Stillwater/SUA to provide proof of such coverage by providing the Project Contact shown on the Summary Sheet of the Bid Packet with a Certificate of Insurance. The Certificate of Insurance must be completed with the following information:

- Contractor’s Name
- Insurer’s name and address
- Policy number
- Liability Coverage Amounts
- Commencement and expiration dates
- Signature of authorized agent of insurer
- Invitation for Bid number
- Insured or Additional Insured shall include the City of Stillwater and its officers, agents and employees

The Bidder shall not cause any required insurance policy to be cancelled or permit to lapse. It is the responsibility of the Bidder to notify the City/SUA of any change in coverage or insurer by providing the City/SUA with an updated Certificate of Insurance. Failure of Bidder to comply with the insurance requirements herein may be deemed a breach of the Purchase Agreement. Further, a Bidder who fails to keep required insurance policies in effect may be deemed to be ineligible to bid on future projects, ineligible to respond to invitations for bid, and/or ineligible to engage in any new purchase agreements.

BONDING.

If the box is checked “Yes,” the Bond is **required**:

A. BID BOND

YES NO

B. PERFORMANCE BOND

YES NO

C. MAINTENANCE BOND

YES NO


D. STATUTORY BOND

YES NO

REFERENCES.

If the box is checked “Yes,” References are **required**:

YES NO

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TS TECHNICAL SPECIFICATIONS
---	---	---

TECHNICAL SPECIFICATIONS

GENERAL REQUIREMENTS

1. QUALIFICATIONS/EXPERIENCE REQUIRED. The SUA may make such investigation as deemed necessary to determine the ability of the Bidder to complete the Work. Such investigation may involve request(s) from SUA for disclosure(s) from Bidder regarding its business/corporate structure, organization, governance, ownership, financial condition, key project personnel, and current workload. The Bidder shall furnish all such information and data for this purpose as the SUA may request. The SUA reserves the right to reject any Bid if the evidence submitted by, or the investigation of, such a Bidder fails to satisfy the SUA that the Bidder is properly qualified and able to carry out the obligations of the Contract and to complete the Work contemplated therein.

2. COSTS INCLUDED IN BID. This bid prices shall include all labor, materials, tools, shipping and equipment that is necessary to perform the work in compliance with the provisions contained with these bid documents. The bid prices shall also include the costs of all incidentals such as insurance, taxes, management, supervision and all overhead.

3. SUBCONTRACTING. Only those sub-contractors listed on the Bid Form may assist the Contractor in the performance of this Contract. If no sub-contractor is listed on the Bid Form or if the Contractor would like to replace a listed sub-contractor, the proposed sub-contractor must be approved in writing prior to proposed sub-contractor performing any work associated with this Contract. Contractor shall be held solely responsible for its subcontractors. Nothing contained in this bid packet (or any other contract documents), shall create any contractual relationship between SUA and any of Contractor's subcontractors or suppliers. Contractor shall require each of its subcontractors to comply with the terms of this bid packet and any other contract documents.

4. INDEPENDENT CONTRACTOR STATUS: Contractor is an independent contractor and Contractor's relationship to SUA shall be that of an independent contractor. Any contract awarded shall not constitute an agreement of hiring under the provisions of any Workmen's Compensation or unemployment compensation law, any old age benefit law or any similar law and it shall not be so construed. The Contractor shall accept full and exclusive liability for the payment of contributions or taxes imposed under such laws by the Federal and/or State Governments which are measured by remuneration paid to Contractor's employees.

5. TERM OF CONTRACT.


- a. Estimated contract award date: January, 2023
- b. Equipment Delivery Date(s) - Kinzie: September, 2023
 - a. If requested lead time for delivery cannot be met, supplier to provide alternative equipment delivery dates for review.
- c. Equipment Delivery Date(s) - Hospital: September, 2023
 - a. Alternatively, breakers for both stations may be delivered at the same time to Kinzie in order to reduce bid price and potential cost escalations.
- d. Estimated Substantial Completion: June, 2024

SCOPE OF WORK

See Attachment A for Scope of Work.

ADDITIONAL REQUIREMENTS

1. NOTICE TO PROCEED. Contractor shall not start work until released to do so by the SUA. When all contract document

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM - TS TECHINICAL SPECIFICATIONS
---	---	--

requirements have been completed, the Contractor will be authorized to begin work on a date specified in a written Notice to Proceed.

2. **SOLICITING WORK.** Contractor shall not solicit or perform work for SUA customers while performing the duties of this contract.
3. **INVOICES AND PAYMENT.**
 - a. Payment will be made in accordance with the agreed Milestone Payment Schedule in Exhibit 2 of Commercial Terms and Conditions (Bidder to propose).
 - b. The SUA will pay for all work performed in accordance with the contract documents upon confirmation that the work has been completed in accordance with the contract documents. Within 30 day of receipt of each invoice, the SUA will either make full or partial payment of the invoice. If full payment is not approved, the SUA will notify the Contractor in writing of the disputed portion of the invoice. Upon resolution of any disputes, SUA will immediately process all remaining payment due to the Contractor.
 - c. The SUA will not reimburse the Contractor for additional fees or materials unless the SUA has approved the reimbursement in writing prior to the expense occurring. In such cases that the SUA approves a reimbursement, the SUA will only reimburse the Contractor for their direct cost with no mark-up.
 - d. Each invoice in excess of \$25,000 shall be accompanied by the “Non-Collusion Affidavit for Invoice Payment Over \$25,000” form.



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

**FORM - TS
TECHINCAL
SPECIFICATIONS 13.1,
ATTACHMENT A**

Attachment A

Technical Specifications

ATTACHMENT A **TABLE OF CONTENTS**


TECHNICAL SPECIFICATIONS

DIVISION 01 - GENERAL REQUIREMENTS

- Section 011100 – Summary of Work
- Section 013210 – Project Meetings, Schedules, and Reports
- Section 013301 – Submittals
 - Appendix A – Submittal Schedule
 - Appendix B – Submittal Information Block
 - Appendix C – Submittal Description
 - Appendix D – Typical Instruction Book or Operating Manual Cover and Spine Layout
- Section 016001 – Equipment and Materials
- Section 017801 – Contract Closeout

DIVISION 33 – UTILITIES

- Section 337519 – High Voltage Circuit Breaker
- Section 337519 – Data Sheet
- Section 337519 – Information Be Provided with Breaker Proposal

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINCAL SPECIFICATIONS 13.2, SECTION 011100
---	---	--

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 011100 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY:

- A. This Section includes basic identification of the Work covered in detail in the complete Contract Documents.

1.02 PROJECT DESCRIPTION:

- A. The Project includes the replacement of six total breakers at two different substations. The substations include: Kinzie Substation, and Hospital Substation.
 - 1. The Kinzie Substation is located at 201 S Sangre Rd, Stillwater, OK 74075
 - 2. The Hospital Substation is located at 1527W. 7th, Stillwater, OK 74074
- B. The delivery schedule of the breaker at each station will be staggered, if required, as described in the Contract Documents.

1.03 WORK COVERED BY CONTRACT DOCUMENTS:

- A. The Contract includes but is not limited to, engineering, designing, fabricating, factory testing, packaging, and delivering the following components of Work, which are listed for the Supplier's convenience in understanding the scope of Work:
 - 1. Six (6) 69kV Circuit Breakers.
 - a. Kinzie Substation – Two (2) Breaker with C0 Rating.
 - b. Hospital Substation – Four (4) Breaker with C0 Rating
 - 2. Spare Parts if Required: See Data Sheet
- B. All Work shall be designed to meet the design data specified herein.
- C. The Supplier shall be responsible for furnishing all material, tools, equipment, labor, supervision, and any other incidental items or services necessary to perform all Work described herein.
- D. Supplier shall arrange and be responsible for transport of the breaker to the site.

1.04 WORK BY OTHERS:


- A. Owner will be responsible for constructing breaker pedestals and setting equipment.
- B. Electrical connections between breaker and equipment not furnished under this Contract shall be performed by Others.

1.05 SPARE PARTS:

- A. If required, supplier shall include all spare parts and tools required for complete installation and commissioning of all supplied Equipment and Materials.
- B. If required, supplier shall provide a separately priced list of recommended spare parts for each piece of equipment.

1.06 CODES AND STANDARDS

- A. Design specifications and construction of the Project shall be in accordance with (1) applicable laws, regulations, codes and standards of the Federal Government and State of Oklahoma, including those set forth below and, (2) applicable local (including county and city) laws, regulations, codes and ordinances, including those set forth below. Publications from the following nationally recognized organizations are applicable to the engineering, design, manufacture, and testing of the Equipment included in the Specifications to the extent referenced in these Specifications. All references to publications are to the latest issue of each together with all latest addenda, amendments, or additions thereto as of the Effective Date. References shall be made in accordance with the abbreviations listed below. In the event that conflicts arise between the codes, standards of practice, specifications or manufacturer recommendations described herein and codes, laws, rules, decrees,

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.2, SECTION 011100
---	---	---

regulations, standards, etc., of the locality where the equipment is to be installed, the more stringent code shall apply. Supplier shall provide a written position of any such conflict clarifications to Owner in writing.

B. Federal Codes:


CAAA	Clean Air Act and Amendments
CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
NERC	North American Electric Reliability Corporation
Title 29	Code of Federal Regulations (CFR), Part 1910 Occupational Safety and Health Standards.

C. Industry Codes:

AA	Aluminum Association
AISC	American Institute for Steel Construction, ASD/LRFD
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
API	American Petroleum Institute
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ASNT	American Society of Nondestructive Testing
AWS	American Welding Society
DIN	German Standard (Deutsche Institute für Normung)
EJMA	Expansion Joint Manufacturer's Association
EN	European Standard
FCI	Fluid Control Institute
HEI	Heat Exchange Institute
IBC	International Building Code
IBC	Stillwater Local IRC IBC Amendments Ordinance No 3127
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Engineers
IES	IES Lighting Handbook
ISO	International Standard Organization
MSS	Manufacturers Standardization Society
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electric Safety Code
NFPA	National Fire Protection Association
SSPC	Steel Structures Painting Council
TEMA UFC	Thermal Insulation Manufacturers Association
UL	Underwriters Laboratories

D. County / City Codes:

Fire Marshall / AHJ	International Fire Code
Building Code	Stillwater Local IRC IBC Amendments Ord No 3127

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINCAL SPECIFICATIONS 13.2, SECTION 011100
---	---	--

1.07 PROJECT SITE CONDITIONS:

- A. The Project Site has the following Site Conditions:
1. Elevation is 930 feet above mean sea level.
 2. Indoor Design Temperatures
 - a. Maximum Dry Bulb 120°F
 - b. Minimum Dry Bulb 50°F
 3. Outdoor Design Temperatures
 - a. Maximum Dry Bulb (1%) 99.2°F
 - b. Mean Coincident Wet Bulb 75.3°F
 - c. Minimum Dry Bulb (99.6%) 13.6°F
 4. Outdoor Extreme Temperatures (n = 10 years)
 - a. Maximum Dry Bulb 110.5°F
 - b. Minimum Dry Bulb 2.6°F
 - c. Extreme Max Wet Bulb 88.2°F
 5. Seismic loads – Section 1613
 - a. Seismic Site Class: D
 - b. Seismic Importance Factor: $I_E = 1.25$
 - c. Component Importance Factor: $I_P = 1.0$
($I_p = 1.5$ under specific conditions, see ASCE 7-05 Section 13.1.3)
 - d. Design Spectral Response Acceleration
 - (1) Short Period: $S_s = 0.193$
 - (2) 1 Second: $S_1 = 0.063$
 - (3) Max. considered short period: $S_{MS} = 0.309$
 - (4) Max. considered 1-second: $S_{M1} = 0.151$
 - (5) 5% damped design short period: $S_{DS} = 0.206$
 - (6) 5% damped design 1-second: $S_{D1} = 0.101$
 - (7) Long-Period Transition Period: $T_L = 12$ seconds
 - e. Seismic Design Category: B


1.08 SITE UTILITIES:

- A. Electrical:
1. Electrical power will be available at the breaker installation locations.

PART 2 - PRODUCTS - Not Applicable.

PART 3 - EXECUTION - Not Applicable.

END OF SECTION 011100

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.3, SECTION 013210
---	---	---

SECTION 013210 - PROJECT MEETINGS, SCHEDULES, AND REPORTS


PART 1 - GENERAL

1.01 SUMMARY:

- A. Project Meetings:
 - 1. Preliminary Conference.
 - 2. Engineering Coordination Meetings
- B. Schedules and Reports:
 - 1. Initial Coordination Submittals.
 - 2. Work Progress Schedule.
 - 3. Work Progress Reports.
- C. Related SECTIONS:
 - 1. Submittals: SECTION 013301.
 - 2. Equipment and Materials: SECTION 016001.

1.02 PROJECT MEETINGS:

- A. Preliminary Conference:
 - 1. Engineer will conduct a conference call within 10 Days after the Award Date to review items stated in the agenda and to establish a working understanding between the parties as to their relationships during performance of the Work. The conference shall be attended by:
 - a. Supplier.
 - b. Owner.
 - c. Supplier's principal Sub-Suppliers, at discretion of Engineer.
 - d. Engineer
 - 2. Meeting Agenda:
 - a. Projected fabrication/construction schedules.
 - b. Project coordination.
 - c. Procedures and processing of:
 - (1) Substitutions.
 - (2) Submittals.
 - (3) Change Orders.
 - (4) Applications for Payment.
 - d. Procedures for testing.
 - 3. Location of Meeting: Conference Call
 - 4. Reporting: Within five (5) Days after the meeting, Engineer will prepare and distribute minutes of the meeting to each party represented.
- B. Engineering Coordination Meetings:
 - 1. Supplier shall schedule and conduct a conference call weekly for coordination during Supplier's equipment engineering and design phase of the Work. Meetings shall be attended by:
 - a. Supplier's representative(s) including engineering personnel.
 - b. Supplier's principal Sub-Suppliers, at Engineer's discretion.
 - c. Owner.
 - d. Engineer
 - 2. Meeting Agenda:
 - a. Review of action items.
 - b. Facility design interfaces.
 - c. Equipment and Material procurement status.
 - d. Engineering/fabrication/manufacturing schedules.
 - e. Requests for information (RFIs).
 - 3. Location of Meetings: Conference Call

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.3, SECTION 013210
---	---	---

4. Reporting: Within five (3) days after the meeting, Supplier shall prepare and distribute minutes of the meetings to each party represented.


1.03 SCHEDULES AND REPORTS:

- A. Initial Coordination Submittals: Within the time indicated in SECTION 013301 Appendix A, Supplier shall submit to Engineer:
 1. A preliminary Work progress schedule.
 2. A preliminary schedule of Submittals.
 - 3.
- B. Work Progress Schedule:
 1. After submittal of preliminary Work progress schedule, submit to Engineer a detailed Work progress schedule and detailed manufacturing schedule for each piece of Equipment within the time indicated in SECTION 013301 Appendix A. Base the schedule on the preliminary Work progress schedule and incorporate review comments and other feedback.
 2. The schedule shall show the Work in a graphic format suitable for displaying scheduled and actual progress.
 - a. Prepare schedules as a horizontal bar chart with separate bar for each major portion of the Work or operation.
 - b. The schedule shall also show the Work broken down into major phases and key items with the dates Work is expected to begin and be completed. Sequence of listings shall be in the chronological order of the start of each item of Work.
 - c. Scale and spacing shall allow space for notations and revisions.
 - d. Sheet size: 8.5 x 11 or 11 x 17 inches.
 3. Provide sub-schedules to define critical portions of entire schedules.
 4. Coordinate Work progress schedule with Work progress reports and delivery schedule.
 5. Engineer will review and comment on Work progress schedule and, upon agreement between Engineer and Supplier on necessary changes:
 - a. Supplier shall print and distribute copies of the accepted schedule to Owner, Engineer, Sub-Suppliers, and other parties required to comply with scheduled dates.
 6. Supplier shall not change the accepted Work progress schedule without prior written concurrence of Engineer.
 7. Submit to Owner an updated schedule at least once a month. Schedule shall show actual progress and any proposed changes in the schedule of remaining Work.
- C. Work Progress Reports:
 1. Submit monthly a report on actual Work progress. More frequent reports may be required should the Work fall behind the accepted schedule.
 2. Work progress reports shall consist of marked copies of prints made from the accepted Work progress schedule, and a narrative report which shall include but not be limited to the following:
 - a. A description of current and anticipated delaying factors, if any.
 - b. Impact of possible delaying factors.
 - c. Proposed corrective actions.
 3. A Work progress report shall accompany each application for payment. Work reported complete but not readily apparent to Engineer must be substantiated with supporting data.
 4. Should operations fall behind accepted schedule to an extent that Supplier's ability to meet the Guaranteed Delivery Dates appears doubtful to Engineer, Engineer shall so notify Supplier, and Supplier shall, at no change in Contract Price, take corrective action to get back on schedule, and submit an updated Work progress report to Engineer.

PART 2 - PRODUCTS - Not Applicable.

PART 3 - EXECUTION - Not Applicable.

END OF SECTION 013210

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINCAL SPECIFICATIONS 13.4, SECTION 013301
---	---	--

SECTION 013301 - SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY:

- A. This Section includes definitions, descriptions, transmittal, and review of Submittals.
- B. Related SECTIONS:
 - 1. Contract Closeout: SECTION 017801.

1.02 GENERAL INFORMATION:


- A. Definitions:
 - 1. Shop Drawings, product data, and Samples are technical Submittals prepared by manufacturer or Supplier and submitted by Supplier to Engineer as a basis for review and approval of the use of Equipment and Materials proposed for incorporation in the Work or needed to describe installation, operation, maintenance, or technical properties, as specified in each Division of the Specifications.
 - a. Shop Drawings include custom-prepared data of all types including drawings, diagrams, performance curves, material schedules, templates, instructions, and similar information not in standard printed form applicable to other projects.
 - b. Product data includes standard printed information on materials, products, and systems; not custom-prepared for this Contract, other than the designation of selections from available choices.
 - c. Samples include both fabricated and unfabricated physical examples of Materials, products, and Work; both as complete units and as smaller portions of units of Work; either for limited visual inspection or for more detailed testing and analysis. Mockups are a special form of Samples which are too large to be handled in the specified manner for transmittal of Sample Submittals.
 - 2. Informational Submittals are those technical reports, administrative Submittals, certificates and guarantees not defined as Shop Drawings, product data, or Samples.
 - a. Technical reports include laboratory reports, tests, technical procedures, technical records, and Supplier's design analysis.
 - b. Administrative Submittals are those nontechnical Submittals required by the Contract or deemed necessary for administrative records. These Submittals include maintenance agreements, bonds, photographs, physical work records, statements of applicability, copies of industry standards, Contract record data, schedules, security/protection/safety data, and similar type Submittals.
 - c. Certificates and guarantees are those Submittals on Equipment and Materials where a written certificate or guarantee from the manufacturer or Supplier is called for in the Specifications.
 - 3. Refer to ARTICLES 1.03 and 1.04 of this Part for detailed lists of documents and specific requirements.
- B. Quality Requirements:
 - 1. Shop drawings and product data shall be submitted in electronic format. Every line, character, and letter shall be clearly legible and of suitable quality for reproduction.
 - 2. Documents submitted to Owner and Engineer that do not conform to specified requirements shall be subject to rejection by Owner and Engineer, and upon request, Supplier shall resubmit conforming documents. Documents rejected due to illegibility or failure to comply with non-technical requirements will not satisfy schedule requirements. If conforming Submittals cannot be obtained, such documents shall be retraced, redrawn, or photographically restored as may be necessary to meet such requirements. Supplier's failure to initially satisfy the legibility quality requirements will not relieve Supplier from meeting the required schedule for Submittals.
 - 3. Supplier shall be notified of any Submittals rejected prior to review for legibility or formatting reasons by Engineer or Owner. No notification will be provided for Submittals which are not rejected.
- C. Language and Dimensions:
 - 1. All words and dimensional units shall be in the English language.
 - 2. Metric dimensional unit equivalents may be stated in addition to the English units. However, English units of measurement shall prevail.
- D. Submittal Completeness:



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

**FORM – TS
TECHINCAL
SPECIFICATIONS 13.4,
SECTION 013301**

1. Submittals shall be complete with respect to dimensions, design criteria, materials of construction, and other information specified to enable Engineer to review the information effectively.
 2. Where standard drawings are furnished which cover a number of variations of the general class of Equipment, each drawing shall be annotated to indicate exactly which parts of the drawing apply to the Equipment being furnished. Use hatch marks or X-outs to clearly indicate variations, optional equipment, or other items which do not apply to the Submittal and circle or box all selected variations, optional equipment, or other applicable selections. The use of “highlighting markers” will not be an acceptable means of annotating Submittals. Such annotation shall also include proper identification of the Submittal permanently attached to the drawing.
 3. Reproduction or copies of Contract drawings or portions thereof will not be accepted as complete fabrication or erection drawings, but will be acceptable when used by Supplier as a drawing upon which to indicate information on erection or to identify detail drawing references. Whenever the Contract drawings are revised to show that additional Supplier's information, Engineer's title block shall be replaced with Supplier's title block, and Engineer's professional seal shall be removed from the drawing.
- E. Form of Submittals:
1. Supplier shall have one contact person for submitting and retrieving documents.
 - a. This person will be responsible for making sure all documents are submitted properly.
 - b. This person will be receiving an email every week stating what needs to be resubmitted.
 - (1) All submittals with an action status of “B”, “C”, or “D” need to be resubmitted as described herein.
 2. Submittal Documents
 - a. Name of file must include:
 - (1) Specifications Section number in front of filename
 - (2) Must be short and specific to the file
 - b. Name of file must NOT include:
 - (1) Revision number/letter
 - (2) Date
 - (3) The word “Submittal”
 - c. All documents that are supplied by the Supplier must be .PDF formatted
 - d. A Submittal Block will be provided to Supplier as a .JPEG file.
 - e. The submittal block must be included on:
 - (1) Each individual PDF drawing. (one drawing per PDF file)
 - (2) The first page of each document that is NOT a drawing.
 - f. When submitting:
 - (1) Send Submittals with transmittal letter to kyle.muret@stillwater.org and cmpeterson@burnsmcd.com
 - (2) On the transmittal letter:
 - 1) Include a description for each file
 - 2) State what revision the file is.
 - (3) State the project number (135250), project description, Contract number (5.5110), and the number indicating the submittal number (1, 2, 3, etc.) within the e-mail
 - g. Return Submittal:
 - (1) Make sure the file name has stayed exactly the same as when you first submitted it.
 - (2) Pick up any of Engineer's comments and make the necessary changes to the original document/drawing.
 - (3) If you are making a change or verifying information on any document, provide comment clouding on these items.
 - (4) If the Contract Engineer has made comments and you are needing to add or delete pages from you original document:
 - (a) Place an “X” through the page to delete it
 - (b) Add additional pages to the end of the PDF.
 3. Document Pick-Up
 - a. Supplier will receive an e-mail stating that your package is ready to be picked up.


	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.4, SECTION 013301
---	---	---

- b. Click on the Webtools link.
- c. Download the package.
 - (1) Included in the package are:
 - (a) A return transmittal letter listing the document being returned and what action status they are given..
 - (b) Documents that are being returned with the submittal block filled out.
- d. Pick-up or respond to all comments from the Engineer.
- e. Resubmit any required documents as described above. Cloud all changes and increase the revision for all resubmitted documents.

1.03 TECHNICAL SUBMITTALS:

- A. Provide required Submittals as specified in Appendix A and in the Specifications. Additional information about Submittals listed in Appendix A is provided in Appendix C. All durations are Days.
- B. Schedule of Submittals:
 - 1. Prepare for Engineer's concurrence a schedule for submission of all Submittals specified or necessary for Engineer's approval of the use of Equipment and Materials proposed for incorporation in the Work or needed for proper installation, operation, or maintenance. Submit the schedule with the Work progress schedule. Schedule submission of all Submittals to permit review, fabrication, and delivery in time to not cause delay in the Work of Supplier or its Sub-Suppliers or any other contractors as described herein.
 - 2. In establishing schedule for Submittals, allow 14 Days in Engineer's office for reviewing original submittals and 14 Days in Engineer's office for reviewing resubmittals. For submittals exceeding 20 drawings, Engineer and Owner may request additional time for review within 2 days of submittal receipt.
 - 3. Submittals requiring revision shall be resubmitted within 14 Days after receipt of Engineer's review notations.
 - 4. The schedule shall indicate the anticipated dates of original submission for each item and Engineer's approval thereof, and shall be based upon at least one resubmission of each item.
 - 5. Schedule all Submittals required for submission within the time specified for each in Appendix A.
 - 6. Resubmit Submittals the number of times required for Engineer's action stamp to read either A, F, or G as described below. However, any need for resubmittals in excess of the number set forth in the accepted schedule, or any other delay in obtaining approval of Submittals, will not be grounds for extension of the Contract Time provided Engineer completes its reviews within the times specified. Supplier shall not commence production of any part of the Equipment and Materials affected thereby until such Submittal has been reviewed and approved by Engineer.
- C. Transmittal of Submittals:
 - 1. All Submittals (shop drawings, product data, and samples) for Equipment and Materials furnished by manufacturers and Supplier shall be submitted to Engineer by Supplier.
 - 2. Transmit all Submittals to Engineer for approval as follows:
 - a. Include Submittal Information Block:
 - (1) Electronic files of Submittal Information Blocks will be provided to Supplier for use on electronic Submittals.
 - (2) An example of the Submittal Information Block is included as Appendix B to this Section.
 - b. Mark each Submittal by Project name and number, Contract title and number, and the applicable Specification Section and Article numbers.
 - c. Check and include Supplier's approval for Submittals of Supplier and manufacturers prior to transmitting them to Engineer. Supplier's approval shall constitute a representation to Owner and Engineer that Supplier has determined and verified all design criteria, quantities, dimensions, materials, catalog numbers, compliance with Laws and Regulations, and similar data, or Supplier assumes full responsibility for doing so, and that Supplier has coordinated each Submittal with the requirements of the Work and the Contract Documents.
 - d. At the time of each submission, call to the attention of Engineer in the transmittal letter any deviations from the requirements of the Contract Documents.
 - e. Make all modifications noted or indicated by Engineer and return revised Submittals until approved. Direct specific attention in writing, or on revised Submittals, to changes other than the modifications

- called for by Engineer on previous Submittals. Previously approved Submittals transmitted for final distribution will not be further reviewed and are not to be revised. If errors are discovered during manufacture or fabrication, correct the Submittal and resubmit for review.
- f. Resubmitted files shall be indicated on the transmittal letter by a later date and revision number than the previous submissions.
 - g. Following completion of the Work and prior to final payment, furnish record documents and approved Samples and Shop Drawings necessary to indicate "as constructed" conditions, including field modifications, in the number of copies specified. Furnish additional copies for insertion in Equipment instruction books and operating manuals as required. All such copies shall be clearly marked "PROJECT RECORD."
 - (1) Submit a final record copy of the Master Field Drawing list which shall indicate the final revision status of each drawing on the list.
3. Quantity Requirements:
- a. Except as otherwise specified in Appendix A, transmit all Shop Drawings in the following quantities:
 - (1) Initial Submittal:
 - (a) Per Appendix A, this Section.
 - (2) Resubmittals:
 - (a) Per Appendix A, this Section.
 - (3) Submittal for final distribution:
 - (a) Paper - One copy to Owner, One copy to Engineer.
 - (b) Electronic - Email in native format. Drawings shall be provided as AutoCAD 2012 or later files.
 - (4) As-constructed documents:
 - (a) Paper - One copy to Owner, one copy to Engineer.
 - (b) Electronic - Email copies to Engineer in native format. Drawings shall be provided as AutoCAD 2012 or later files.
 - b. Transmit Submittals of product data as indicated for Shop Drawings above.
 - c. Transmit Submittals of Material Samples, color charts, and similar items as follows:
 - (1) Initial Submittal – Two to Engineer. One to Owner.
 - (2) Resubmittal – Two to Engineer. One to Owner.
 - (3) Upon approval, no Sample(s) will be returned to Supplier.
 - d. Except as otherwise specified in Appendix A, transmit Submittals of Equipment instruction books and operating manuals as follows:
 - (1) Initial Submittal:
 - (a) Paper - No copies to Engineer. One copy to Owner. Only Engineer's comments will be returned to Supplier.
 - (b) Electronic - One copy to Engineer. One copy to Owner.
 - (2) Resubmittals:
 - (a) Paper - No copies to Engineer. One copy to Owner. Only Engineer's comments will be returned to Supplier.
 - (b) Electronic - One copy to Engineer. One copy to Owner.
 - (3) Submittal for Final Distribution –
 - (a) Four paper copies to Owner upon Engineer's written authorization.
 - (b) Email copy to Engineer as PDF files and email copies to Owner.
 - e. All Submittals provided in PDF format shall contain searchable text.
 - f. When all Submittals have been updated to "as-constructed" conditions, transmit to Engineer three copies and Owner five copies each of manuals by email.
 - g. Owner may copy and use for internal operations and staff training purposes any and all document Submittals required by this Contract and approved for final distribution, whether or not such documents are copyrighted, at no additional cost to Owner. If permission to copy any such Submittal for the purposes stated is withheld from Owner by manufacturer or Supplier, the Supplier shall provide to Owner 50 copies plus the number of copies required by Supplier at each final distribution issue.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.4, SECTION 013301
---	---	---

4. Supplier's erection drawings and other Submittals required for installation of Equipment furnished under this Contract for installation under other contracts will be transmitted electronically to installing contractor by Engineer in the final distribution of such Submittals.
5. Information to Manufacturer's District Office: Supplier shall arrange for manufacturers and suppliers of Equipment or Materials to furnish copies of all agreements, drawings, specifications, operating instructions, correspondence, and other matters associated with this Contract to the manufacturer's district office servicing Owner. Insofar as practicable, all business matters relative to Equipment and Materials included in this Contract shall be conducted through such local district offices.

D. Engineer's Review:

1. Engineer will review and take appropriate action on Submittals in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if items of Equipment and Materials covered by the Submittals are compatible with the design concept and conform to information given in the Contract Documents.
2. Such review and approval will not extend to design data reflected in Submittals which is peculiarly within the special expertise of Supplier. Review and approval of a component item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval of Shop Drawings, product data, or Samples will not relieve Supplier of responsibility for any deviation from requirements of the Contract Documents unless Supplier has in writing called Engineer's attention to such deviation at the time of submission, and Engineer has given written concurrence in and approval of the specific deviation. Approval by Engineer shall not relieve Supplier from responsibility for errors or omissions in Submittals.

E. Submittal Action Stamp:


1. Engineer's review action stamp, appropriately completed, will appear on all Submittals of Supplier when returned by Engineer. Review status designations listed on Engineer's action stamp are defined as follows:

A - SUBMITTAL APPROVED Signifies Equipment or Material represented by the Submittal conforms to the design concept and complies with the intent of the Contract Documents and is approved for incorporation in the Work. Supplier is to proceed with fabrication or procurement of the items and with related Work. Copies of the Submittal are to be transmitted to Engineer for final distribution.

B - SUBMITTAL APPROVED AS NOTED (RESUBMIT) Signifies Equipment or Material represented by the Submittal conforms to the design concept and complies with the intent of the Contract Documents and is approved for incorporation in the Work in accordance with Engineer's notations. Supplier is to proceed with fabrication or procurement of the items and with related Work in accordance with Engineer's notations and is to submit a revised Submittal responsive to notations marked on the returned Submittal or written in the letter of transmittal.

C - SUBMITTAL RETURNED FOR REVISION (RESUBMIT) Signifies Equipment or Material represented by the Submittal appears to conform with the design concept and comply with the intent of the Contract Documents but information is either insufficient in detail or contains discrepancies which prevent Engineer from completing its review. Supplier is to resubmit revised information responsive to Engineer's annotations on the returned Submittal or written in the letter of transmittal. Fabrication or procurement of items represented by the Submittal and related Work is not to proceed until the Submittal is approved.

D - SUBMITTAL NOT APPROVED (SUBMIT ANEW) Signifies Equipment or Material represented by the Submittal does not conform to the design concept or comply with the intent of the Contract Documents and is disapproved for use in the Work. Supplier is to provide Submittals responsive to the Contract Documents.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS 13.4, SECTION 013301
---	---	---

E - PRELIMINARY SUBMITTAL Signifies Submittals of such preliminary nature that a determination of conformance with the design concept or compliance with the intent of the Contract Documents must be deferred until additional information is furnished. Supplier is to submit such additional information to permit layout and related activities to proceed.

F - FOR REFERENCE, NO APPROVAL REQUIRED Signifies Submittals which are for supplementary information only; pamphlets, general information sheets, catalog cuts, standard sheets, bulletins and similar data, all of which are useful to Engineer or Owner in design, operation, or maintenance, but which by their nature do not constitute a basis for determining that items represented thereby conform with the design concept or comply with the intent of the Contract Documents. Engineer reviews such Submittals for general content but not for basic details.

G - DISTRIBUTION COPY (PREVIOUSLY APPROVED) Signifies Submittals which have been previously approved and are being distributed to Supplier, Owner, and others for coordination and construction purposes.

F. Instruction Books and Operating Manuals:

1. In addition to electronic Submittals specified above, Equipment instruction books and operating manuals prepared by the manufacturer shall include the following:
 - a. Index and tabs.
 - b. Instructions for installation, start-up, operation, inspection, maintenance, parts lists and recommended spare parts, and data sheets showing model numbers.
 - c. Applicable drawings.
 - d. Warranties and guarantees.
 - e. Name and address of nearest manufacturer-authorized service facility.
 - f. All additional data specified.
2. Each hard copy of the manuals shall be assembled and bound in black three-ring binders designed for rough usage. Binders shall be as specified below.
 - a. Front covers and spine of the manuals shall be permanently marked with white lettering indicating Owner's name, plant name, unit number, name of equipment, volume number if applicable, contract number, name of Supplier, Supplier's address, and year of manufacture. See Appendix D of this Section for more details.

Manufacturer	ViaTech Publishing Solutions or approved equal 424 North Cedarbrook Avenue Springfield, Missouri 65802 1-800-888-0823
--------------	--

Binder type	Swing Hinge C78 Split Prong
-------------	-----------------------------


Construction	Stiff binder board
--------------	--------------------

Covering	Supported vinyl skytogen liner
----------	--------------------------------

Material and color	Black imitation leather (Material Code NV899)
--------------------	---

Font	News Gothic Condensed
------	-----------------------

Imprinting	Foil stamp in accordance with Appendix D of this section. Imprinting color is to be white.
------------	--

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINCAL SPECIFICATIONS 13.4, SECTION 013301
---	---	--

Capacities available Split prong swing hinge 2 inch or 3 inch as required.

- b. Binder capacities shall not exceed 3 inches, nor shall material included exceed the designed binder capacity. If material to be bound exceeds capacity rating, multiple volumes shall be furnished. Binder capacity should not be more than approximately ½- inch greater than the thickness of the material within the binder.
- c. Submit mockup of cover and spine for Engineer's review.

1.04 **INFORMATIONAL SUBMITTALS:**

- A. Informational Submittals are comprised of technical reports, administrative Submittals, and guarantees which relate to the Work, but do not require Engineer approval prior to proceeding with the Work. Informational Submittals include:
 - 1. Test reports.
 - 2. Shipping and/or packing lists.
 - 3. Job progress schedules.
 - 4. Equipment and Material delivery schedules.
 - 5. Warranties and guarantees.
- B. Transmittal of Informational Submittals:
 - 1. All Informational Submittals furnished by manufacturers and suppliers shall be submitted to Engineer by Supplier unless otherwise specified.
 - a. Identify each Informational Submittal by Project name and number, Contract title and number, and the Specification Section and Article numbers marked thereon or in the letter of transmittal. Unidentifiable Submittals will be returned for proper identification.
 - b. At the time of each submission, call to the attention of Engineer in the letter of transmittal any deviations from the requirements of the Contract Documents.
 - 2. Quantity Requirements:
 - a. Technical reports and administrative Submittals except as otherwise specified:
 - (1) Paper: One copy each to Engineer and Owner.
 - (2) Electronic: One copy each to Engineer and Owner.
 - 3. Test Reports:
 - a. Responsibilities of Supplier, Owner, and Engineer regarding tests and inspections of Equipment, Materials, and completed Work are set forth elsewhere in this Contract.
 - b. The party specified responsible for testing or inspection shall in each case, unless otherwise specified, arrange for the testing laboratory or reporting agency to distribute one electronic copy of the test reports to Owner, Engineer, and Supplier.
- C. Engineer's Review:
 - 1. Engineer will review informational Submittals for indications of Work or Material deficiencies.
 - 2. Engineer will respond to Supplier on those informational Submittals which indicate Work or Material deficiency.

PART 2 - PRODUCTS - Not Applicable.

PART 3 - EXECUTION - Not Applicable.

END OF SECTION 013301



INVITATION FOR BID
 SUA BID #19-22/23
 69KV Circuit Breakers
 Issued: January 21, 2023

**FORM – TS
 TECHNICAL
 SPECIFICATIONS
 APPENDIX A, SECTION
 013301**


ID	Description	Subject To LD's	With Bid (for bid evaluation and award)	For Acceptance (required prior to fabrication)	For Information / Certification / Construction (conformed including Owner's and Engineer's comments)
1	Notice of Shipment				E – 30 Days prior to shipment
2	Preliminary Outline Drawing & Loading Info		E		
3	Average Delivery Lead Time Range at time of Bid Opening		E		
4	Recommended Installation & Commissioning Spare Parts		E		
5	Recommended Spare Parts		E		
6	Preliminary Work Progress Schedule				E – 15 Days ARO
7	Schedule of Submittals		E	E – 15 Days ARO	
8	Detailed Manufacturing Schedule with milestones for each piece of Equipment				E – 30 Days ARO
9	Detailed drawing list with submittal dates				E – 30 Days ARO
10	Detailed commissioning work Progress Schedule				E – 60 Days prior to delivery
11	Preliminary O&M Manuals			E – 60 Days prior to earliest Guaranteed Delivery Date	
12	Installation Manuals			E – 60 Days prior to earliest Guaranteed Delivery Date	P (4), E – 30 Days prior to earliest Guaranteed Delivery Date
13	Final O&M Manuals				P (4), E – 30 Days prior to earliest Guaranteed Delivery Date
14	Packing Lists				P (1) – With each shipment
15	Bills of Materials			E – 60 Days ARO	
16	Unloading, Handling & Storage Requirements and Procedures				P (1), E – With Notice of Shipment
17	Material Safety Data Sheets (if applicable)				P (4), E – With Notice of Shipment and with each Shipment
18	Outline Drawing			E – 30 Days ARO	
19	Foundation Loadings and Details			E – 30 Days ARO	



INVITATION FOR BID
 SUA BID #19-22/23
 69KV Circuit Breakers
 Issued: January 21, 2023

**FORM – TS
 TECHNICAL
 SPECIFICATIONS
 APPENDIX A, SECTION
 013301**

ID	Description	Subject To LD's	With Bid (for bid evaluation and award)	For Acceptance (required prior to fabrication)	For Information / Certification / Construction (conformed including Owner's and Engineer's comments)
20	Anchor Bolt and Setting Drawing			E – 30 Days ARO	
21	Crane/Hoist Schedule			E – 90 Days ARO	
22	Nameplate Drawing			E – 50 Days ARO	
23	Electrical Schematics			E – 50 Days ARO	
24	Interconnection Drawings			E – 50 Days ARO	
25	CT Saturation Curves			E – 50 Days ARO	
26	Bushing Drawings			E – 60 Days ARO	
27	Factory Test Schedule				E– 30 Days prior to test
28	Factory Test Procedure				E–21 Days prior to test
29	Factory Test Report				E – 15 Days after test
30	Field Testing Procedure/Schedule				E– 30 Days prior to test

	<p align="center">INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023</p>	<p align="center">FORM – TS TECHINCAL SPECIFICATIONS APPENDIX B, SECTION 013301</p>
---	---	--


SECTION 013301 APPENDIX B
Submittal Information Block

Supplier to fill in all blanks
without preprinted information

For the use of Engineer

<p>Project Supplier Identification</p> <p>Supplier: _____</p> <p>Project Name: _____</p> <p>Project No.: _____</p> <p>Contract Title: _____</p> <p>Contract No.: _____</p> <p>Spec. Section No.: _____</p> <p>Supplier's Approval: Submission of this document shall represent contractor's approval as specified in the Contract. Supplier remains liable for accuracy of Submittals as provided in the Contract.</p>	<p>Date Engineer Received</p>									
	<p align="center">Engineer's Action (See Contract Documents)</p> <table> <tr> <td>Initials & Date</td> <td>Initials & Date</td> </tr> <tr> <td>A _____</td> <td>E _____</td> </tr> <tr> <td>B _____</td> <td>F _____</td> </tr> <tr> <td>C _____</td> <td>G _____</td> </tr> <tr> <td>D _____</td> <td></td> </tr> </table>	Initials & Date	Initials & Date	A _____	E _____	B _____	F _____	C _____	G _____	D _____
Initials & Date	Initials & Date									
A _____	E _____									
B _____	F _____									
C _____	G _____									
D _____										

1. Use this decal on all shop drawings, whether prepared by Supplier or Sub-Supplier. Place as near as possible to the drawing title in the lower right corner.
2. Affix the gummed edge paper information blocks to all "product data" type Submittals immediately inside the front cover.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINCAL SPECIFICATIONS APPENDIX C, SECTION 013301
---	---	--

SECTION 013301APPENDIX C
Submittal Description

System I/O list

- Tabulation of all inputs and outputs associated with a PLC or DCS to be used to control the supplied system.

Electrical Schematic

- Detailed schematics showing each and every light, switch, controller, relay, timer, etc., associated with a systems control circuit
- All voltage and current ratings
- Special wiring requirements (coax, high temp., etc.)

Control Panel Front View & Internal Wiring Diagram

- Physical diagrams of all supplied control panels (internal and external)
- All light and switches including color
- All wiring internal to the panel
- All Tagging/Labeling
- Panel NEMA rating

Electrical Load List

- Tabulation of all motors (load in hp)
- Tabulation of all variable speed drives (load in kW)
- Tabulation of all 120V vital ac loads (load in kW)
- Tabulation including hp, voltage, and number of phases

Electrical Equipment Layout

- Physical drawing showing the location of each of the electrical interface points and elevation of equipment in respect to the plant elevation
- Location of each device that requires Owner's cable to be run to it

Equipment Installation Details

- Drawings showing how to install all devices that require field installation
- Details including support/mounting devices
- Instrument installation details including tubing installation from root valve to the instrument including tubing size, slope, valve manifold, etc.

Interconnection Wiring Diagrams


- Overall system diagram showing 100% of the field wiring required
- Interface of each device or panel being supplied in the system
- Voltage and current ratings

Control Logic Diagrams

- Normal start/stop sequence
- Alarm development
- Identification of all time delays
- Auto stop/start sequence
- Identification of digital control
- Identification of analog control

P&ID's

- System diagrams of all system piping
- Identification of all instruments, pressure switches, limit switches, temperature elements, etc.
- Identification of interface (PLC, DCS, or hard wired interlocks) for each device

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINICAL SPECIFICATIONS APPENDIX C, SECTION 013301
---	---	---

- Identification of valves, pumps, etc.
- Identification of all pipe size, materials, and schedule

General Arrangement Drawings

- Dimension and location (plan and elevation) of all equipment including locating dimensions in respect to the plant columns and elevation of equipment in respect to the plant elevation
- Identification of all pull space requirements
- Identification of all access/maintenance requirements

Foundation Details

- Foundation details/outlines depicting overall dimensions, pad and blockout requirements, anchor bolt locations and details, and any additional information necessary to establish the foundation arrangement
- Either actual or "not-to-exceed" foundation design loads, and their points of application, for all applicable load cases and/or combinations (i.e., dead load, live load, wind, seismic, dynamic, etc.)
- Identification of loading directions, magnitudes, and any other permanent data required for the foundation design

Structural and Miscellaneous Steel

- Certified shop drawings and erection diagrams for all structural steel and miscellaneous steel
- Documents prepared in accordance with the AISC specification for the design, fabrication, and erection of structural steel for buildings

Outline Drawings


- Outline dimensional drawing
- Location of all interface connections (plan and elevation)
- Recommended/required mounting details clearly depicting bolting location, size, material, and projection requirements, or sufficient data such that the Engineer can establish such requirements (for dynamic equipment or machinery data include operating speeds, rotating masses, centers-of-gravity, eccentricities, etc.)
- Weight and center of gravity
- Type of interface connection (e.g., 150 lb. RF flange, welded, weld end preparation, wall thickness or schedule, etc.)
- Allowable loads for all nozzles
- Removal space/maintenance requirements
- Special rigging requirements
- Thermal movements of all nozzles (if applicable)

Piping Information


- Physical drawing showing the routing of all vendor supplied pipe
- Location of pumps, valves, traps, strainers, instrument connections, etc. on the piping drawing
- Location of all Owner/Vendor interface points (plan and elevation) for large and small pipe
- Drawing including locating dimensions in respect to the plant columns and elevation or centerline of equipment
- Allowable loads and movements for all interface points
- Support locations and details
- Identification of pipe sizes, materials, valves, pumps, insulation, etc.
- Field weld locations
- Wall/floor penetration requirements
- Pipe movements in excess of 1 inch
- Design/service conditions (temperature/pressure)

O & M Manuals

- Description of equipment
- Theory of operation
- Troubleshooting
- Equipment drawings
- Installation instructions
- Maintenance instructions

	<p>INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023</p>	<p>FORM – TS TECHINCAL SPECIFICATIONS APPENDIX C, SECTION 013301</p>
---	---	---

- Sub-supplier component list


	<p align="center">INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023</p>	<p align="center">TECHINCAL SPECIFICATIONS APPENDIX D, SECTION 013301</p>
---	---	---

SECTION 013301 APPENDIX D
Typical Instruction Book Cover

<p align="center">69KV Breakers</p> <p align="center">Stillwater Electric Utility</p> <p align="center">Boomer Lake Substation</p> <p align="center">CONTRACT NUMBER 19-22/23</p> <p align="center">VOLUME NUMBER*</p>	<p align="center">Stillwater Electric Utility 36</p> <p align="center">Boomer Lake Substation 24</p> <p align="center">INSTRUCTION BOOK 36 FOR 36 69KV Breakers 36 VOLUME NUMBER* 36</p> <p align="center">CONTRACT NUMBER SUA 19-22/23 24</p> <p align="center">SUPPLIER'S NAME 24 SUPPLIER 'S ADDRESS 24 SUPPLIER'S ORDER NUMBER 24</p> <p align="center">Equipment Tag Number(s) 24</p>
	<p align="center">(Spine)</p>

NOTES:

1. All lettering shall be a block style font such as Arial.
2. All spine lettering shall be 14 point.
3. Cover lettering shall be point sizes indicated in column to right of cover illustration.
4. *Volume number required only if instructions are contained in more than one volume

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS EQUIPMENT & MATERIAL, 016001
---	---	---

SECTION 016001 - EQUIPMENT AND MATERIALS

PART 4 - GENERAL

4.01 SUMMARY:


- A. This Section includes general requirements for transportation and handling, delivery, storage, and protection of Supplier-furnished Equipment and materials.
- B. Related SECTIONS:
 - 1. Submittals: SECTION 013301.

4.02 DEFINITIONS:

- A. Terms used in this SECTION are not intended to negate the meaning of other terms used in the Contract , including such terms as "systems," "structures," "finishes," "accessories," "furnishings," "special construction," and similar terms. Such terms are self-explanatory and have recognized meanings in the construction industry.

4.03 QUALITY ASSURANCE:

- A. Equipment and Material incorporated into the Work:
 - 1. Conform to applicable Specifications, codes, standards, and requirements of regulatory agencies.
 - 2. Provide Products that comply with the requirements of the Contract, undamaged and, unless otherwise indicated, new and unused at the time of installation. Provide Products that are complete with all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and for the intended use and effect.
 - a. Standard Products: Where they are available and comply with Specifications, provide standard Products of types that have been produced and used successfully in similar situations on other projects.
 - b. Continued Availability: Where, because of the nature of its application, Owner is likely to need replacement parts or additional amounts of a product at a later date, either for maintenance and repair or replacement, provide standard Products for which the manufacturer has published assurances that the products and its parts are likely to be available to Owner at a later date.
 - 3. Comply with size, make, type, and quality specified, or as specifically approved in writing by Owner.
 - 4. Manufactured and Fabricated Products:
 - a. Design, fabricate, and assemble in accordance with the applicable standard trade, engineering, and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gages, to be interchangeable.
 - c. Two or more items of the same kind shall be identical, by the same manufacturer.
 - d. Equipment and Material shall be suitable for service conditions intended.
 - e. Equipment capacities, sizes, and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing by Owner.
 - 5. Do not use Material or Equipment for any purpose other than that for which it is designed or is specified.
- B. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.
 - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
 - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated Equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer including address and telephone number.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS EQUIPMENT & MATERIAL, 016001
---	---	---

C. Electronic Equipment Compliance:

1. Supplier warrants that all equipment, devices, items, systems, software, hardware, or firmware provided shall properly, appropriately, and consistently function and accurately process date and time data (including without limitation: calculating, comparing, and sequencing). This warranty supersedes anything in the Contract which might be construed inconsistently. This warranty is applicable whether the equipment, device, item, system, software, hardware, or firmware is specified with or without reference to a manufacturer's name, make, or model number.

4.04 TRANSPORTATION AND HANDLING:

A. Shipment Preparation:

1. Supplier shall prepare Equipment and Materials for shipment in a manner to facilitate unloading and handling, and to protect against damage or unnecessary exposure in transit and storage. Provisions for protection shall include the following:
 - a. Crates or other suitable packaging materials.
 - b. Covers and other means to prevent corrosion, moisture damage, mechanical injury, and accumulation of dirt in motors, electrical equipment, and machinery.
 - c. Suitable rust-preventive compound on exposed machined surfaces and unpainted iron and steel.
 - d. Grease packing or oil lubrication in all bearings and similar items.

B. Marking: Tag or mark each item of Equipment and Material as identified in the delivery schedule or on Submittals and include complete packing lists and bills of material with each shipment. Each piece of every item need not be marked separately provided that all pieces of each item are packed or bundled together, and the packages or bundles are properly tagged or marked.

C. Bills of Material: Supplier shall email bills of material to Engineer prior to delivery of each shipment and shall include bills of material with each shipment.

D. Delivery:

1. Furnish Engineer all requirements for unloading and handling of Equipment and Materials upon delivery sufficiently in advance to allow Owner sufficient preparation time for Owner's installation crew. Include type and capacity of unloading equipment being provided.
2. Deliver Equipment and Materials in an undamaged condition, in original containers or packaging, with identifying labels intact and legible.
3. Mark partial deliveries of component parts to identify the Equipment or Material, to permit easy accumulation of parts, and to facilitate assembly.

E. Receipt and Unloading:

1. Deliver all Equipment and Materials complete with packing lists and bills of material. Supplier's installation crew shall furnish receipts to shipper upon delivery.
2. Owner shall receive, check, unload, inventory, accept, and store all Equipment and Materials delivered to the Point of Delivery in accordance with proper notice. Report any damage to Owner's Site Representative prior to or during unloading and advise Owner's Site Representative of any shortage at time of delivery.

4.05 STORAGE AND PROTECTION:


A. Storage Requirements:

1. Furnish Engineer all requirements for storage and protection of all Equipment and Materials with notice of shipment, to allow installing contractor sufficient preparation time.
2. Installing contractor will furnish all facilities needed for storage of Auxiliary Equipment at the Project Site.
3. Installing contractor will assume responsibility for and protect all Auxiliary Equipment in accordance with Supplier's recommendations.

PART 5 - PRODUCTS - Specified in applicable Sections.

PART 6 - EXECUTION - Not Applicable.

END OF SECTION 016001

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

SECTION 337519.13 – HIGH VOLTAGE CIRCUIT BREAKERS

PART 1 - GENERAL

1.01 SUMMARY:

- A. This specification covers three-phase, high voltage and extra high voltage (EHV), SF6 gas insulated, dead tank circuit breakers along with gas, maintenance tools, and spare parts.
- B. The 337519.13 CIRCUIT BREAKER DATA SHEET is part of this specification. The Data Sheet defines the scope of work that is included in the request for a proposal.
- C. Exceptions to these specifications shall be listed in the PROPOSAL DATA SHEET completed by the SUPPLIER.

1.02 REFERENCES: Unless otherwise specified, the most recent date and revision of the referenced standard shall apply. Where there are differences between the referenced standards and this specification, the requirements of this specification shall govern.

- A. American Society of Mechanical Engineers (ASME):
 - 1. Boiler and Pressure Vessel Code (BPVC), Section VIII- Rules for Construction of Pressure Vessels Division 1 with Addenda.
- B. ASTM International:
 - 1. B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric).
 - 2. D1535- Standard Practice for Specifying Color by the Munsell System.
 - 3. D2472, Specification for Sulfur Hexafluoride.
- C. The Institute of Electrical and Electronic Engineers (IEEE):
 - 1. IEEE 693, IEEE Recommended Practice for Seismic Design of Substations.
 - 2. IEEE C2, National Electric Safety Code
 - 3. IEEE C37.04, IEEE Standard Rating Structure for AC High Voltage Circuit Breakers.
 - 4. IEEE C37.06, AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis – Preferred Ratings and Related Required Capabilities for Voltages above 1000 V.
 - 5. IEEE C37.09, IEEE Standard Test Procedure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis.
 - 6. IEEE C37.010, Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis.
 - 7. IEEE C37.017, IEEE Standard for Bushings for High Voltage [over 1000 V (ac)] Circuit Breakers and Gas-Insulated Switchgear.
 - 8. IEEE C37.11, IEEE Standard Requirements for Electrical Control for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis.
 - 9. IEEE C37.12, IEEE Standard Requirements for Electrical Control for AC High-Voltage



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

10. Circuit Breakers Rated on a Symmetrical Current Basis. IEEE C37.12.1, IEEE Guide for High-Voltage (>1000 V) Circuit Breaker Instruction Manual Content
11. IEEE C37.100, IEEE Standard Definitions for Power Switchgear.
12. IEEE C37.100.1, IEEE Standard of Common Requirements for High-Voltage Power Switchgear Rated Above 1000 V.
13. IEEE C57.13, IEEE Standard Requirements for Instrument Transformers.
14. IEEE C57.13.2, IEEE Standard for Conformance Test Procedure for Instrument Transformer.
15. IEEE C57.13.6, IEEE Standard for High-Accuracy Instrument Transformers.
16. IEEE C37.122.3, IEEE Guide for Sulphur Hexafluoride (SF6) Gas Handling for High-Voltage (over 1000 Vac) Equipment.

D. National Electrical Manufacturers Association (NEMA):

1. NEMA Standards Publication 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
2. NEMA CC-1, Electric Power Connection for Substations.
3. NEMA SG 4, Alternating Current High-Voltage Circuit Breakers.
4. NEMA SG 11, Guide for Handling and Maintenance of Alternating Current Outdoor High-Voltage Circuit Breakers.
5. NEMA/ANSI C84.1, Electric Power Systems and Equipment - Voltage Ratings (60 Hz)

E. International Electrotechnical Commission

1. IEC 60137,
2. IEC 60815-1, Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 1: Definitions, information and general principles
3. IEC 60815-3, Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 3: Polymer insulators for A.C. systems

F. The Society for Protective Coatings:

1. SSPC Painting Manual, Volume 1, 4th Edition, Good Painting Practice.
2. SSPC Painting Manual, Volume 2, 2008 Edition, Systems and Specifications.

G. Underwriters Laboratories:

1. UL 1581, Reference Standard for Electrical Wires, Cables, and Flexible Cords. submittals

1.03 SUBMITTALS: In addition to the requirements of Owner, the following documents shall be submitted.

A. With proposal:

1. Outline drawing showing the overall dimensions.
2. Circuit breaker weight.
3. Detailed list of exceptions or deviations.


B. Documents for OWNER's Review: The following drawings shall be submitted for review no later than six (6) calendar weeks after receipt of order (ARO). Review drawings shall be returned three (3) calendar weeks after receipt. Documents include, but are not limited to, the following:



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023


FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

1. Manufacturer's specifications.
2. General outline drawings of equipment showing overall dimensions, location of major components, weights, and locations of conduit entrance plates.
3. Loading diagrams indicating the following:
 - a. Total weight including all accessories with insulating gas.
 - b. Total weight including all accessories without insulating gas.
 - c. Impact loads and uplift during closing and opening operations.
4. Detailed equipment installation drawings showing foundation requirements, anchor bolt sizes and locations, base plate sizes, location of OWNER's connections, and all clearances required for erection, operation, and maintenance of the equipment. Include torque specifications for all bolted connections to be installed during field assembly.
5. Outline drawings of bushings with maximum cantilever withstand in all three axes.
6. Schematic diagrams for electrical items showing external connections, terminal block numbers, breaker and fuse ratings, and internal wiring diagrams.
7. Schematic of the dry-air system, hydraulic system or air system including all valve locations and normal operating positions.
8. A list of all instruments furnished including all gauges, switches, solenoid valves, thermocouples, transmitters, meters, etc. Each instrument shall be assigned a unique designation which shall be included on the instrument list and wherever the instrument occurs on any of the drawings.
9. Bill of materials, spare parts list, and list of parts shipped loose.
10. Instrument transformer performance curves.
11. Instrument transformer connection and polarity diagrams.
12. Diagrammatic nameplate drawings including all manufacturing data and serial numbers.
13. Annunciator point legend and arrangement drawing.
14. Instruction books with all of the information listed in IEEE C37.12.1, including dry-air filling instructions. Also include specifications for any oil, etc., required for compressor motors and other equipment. Lubricant characteristics shall be sufficiently detailed that a replacement lubricant can be selected if the lubricant manufacturer discontinues the specified lubricant. One instruction book as approved by the ENGINEER shall be shipped with each power circuit breaker in addition to those required for approval.
15. Type test, design test, routine test, and production test reports.
16. Where standard drawings are furnished which cover a number of variations of the general class of equipment, each such drawing shall be individually annotated to describe exactly which parts of the drawing apply to the equipment being furnished. Such annotation shall also include proper identification of the submittal per-manently attached to the drawing.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

- 1.04 MAINTENANCE: SUPPLIER shall furnish all maintenance tools and replacement parts listed in PART 2.10 and the CIRCUIT BREAKER DATA SHEET if required.
- 1.05 SHIPPING:
- A. SUPPLIER shall notify the OWNER of its intention to ship at least fifteen (15) working days prior to the expected ship date.
 - B. All circuit breakers that are delivered to the location specified in the CIRCUIT BREAKER DATA SHEET shall be shipped FOB destination in open top or on flat bed trucks.
 - C. All circuit breakers shall contain desiccant during shipment unless the breaker is filled with 5 psi pressure of SF6
 - D. Notification of shipping shall be sent to the person identified on the OWNER's purchase order as the receiver or to the Shipping Contact identified on the CIRCUIT BREAKER DATA SHEET at least three (3) working days prior to delivery of circuit breaker and materials.
 - E. The circuit breaker shall be shipped as fully assembled as possible. SUPPLIER shall identify shipping splits.
 - F. All shipping container(s) shall be labeled with OWNER's P.O. number, substation name, and number of container(s) (1 of 6, etc.). If multiple circuit breakers are sent in one shipment, each container(s) shall be clearly identified so that all parts can be matched.
 - G. The equipment and accessories shall be adequately anchored, braced, and packed to prevent damage from vibration, shock, or dampness that might reasonably be encountered in transportation and handling.
 - H. If SUPPLIER requires that their field service representative be present during initial installation or energization of equipment, a notice shall be clearly attached to each piece of equipment so that OWNER's construction personnel are aware of this requirement. This notice shall include the name, phone number and e-mail address of the SUPPLIER's field service representative.
 - I. If heater energization is required during storage, heater extension cables shall be routed to the exterior of the container, be properly protected and correctly labeled for the OWNER's contractor to utilize.
 - J. Delivery
 - 1. SUPPLIER shall provide, at a minimum, impact indicators to be affixed on each shipping unit to ensure safe delivery to the job site. If circuit breaker is shipped in separate pieces/sections, one indicator per item shall be provided.
 - 2. If required on the CIRCUIT BREAKER DATA SHEET, GPS triaxial impact and environmental recorders shall be provided with circuit breaker to ensure safe delivery to the job site. If circuit breaker is shipped in separate pieces/sections, one recorder per item shall be provided. If requested by OWNER, recorders shall be left on equipment during installation.
 - 3. The SUPPLIER shall provide the OWNER all necessary information for the OWNER, or OWNER's subcontractor, to properly unload the circuit breaker.

PART 2 - PRODUCTS

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

2.01 REQUIREMENTS:

- A. The following are requirements of this specification as indicated on the CIRCUIT BREAKER DATA SHEET.
 - 1. The quantity of three-phase units.
 - 2. Maximum voltage.
 - 3. Continuous current.
 - 4. Short circuit current.
 - 5. Closing resistors.
 - 6. Replacement parts.
 - 7. Maintenance equipment.

2.02 SERVICE CONDITIONS:

- A. The circuit breaker(s) shall conform to the usual service conditions given in IEEE Std. C37.04 and as indicated on the CIRCUIT BREAKER DATA SHEET.
- B. The specified service conditions are the service conditions and operating conditions for all components of the circuit breaker.
- C. Circuit breaker shall be suitable for operation in a power system with the following characteristics:
 - 1. Three phase.
 - 2. 60 Hertz.
 - 3. Effectively grounded.
 - 4. Electrical system faults that are single phase-to-ground; phase-to-phase grounded and ungrounded; and three phase grounded and ungrounded.
- D. Circuit breakers of the same manufacturer, model, and rating, shall be electrically, mechanically, and physically interchangeable with one another. Each component of each circuit breaker shall be electrically, mechanically, and physically identical to components in all circuit breakers and spare parts furnished under these specifications.
- E. Low voltage ac station service voltage is 60 Hz, single phase, or three phase wye connected, and effectively grounded. Station service voltage magnitude and phases are indicated on the CIRCUIT BREAKER DATA SHEET. Voltage is Voltage Range B for utilization voltage given in Table 1 of ANSI C84.1.
- F. Low voltage dc station service is ungrounded with nominal voltage shown on the CIRCUIT BREAKER DATA SHEET. Voltage range is -25%, +10% of nominal.

2.03 CIRCUIT BREAKERS:

- A. The quantity of circuit breakers shall be as indicated on the CIRCUIT BREAKER DATA SHEET.
- B. IEEE circuit breaker ratings shall be in accordance with IEEE C37.06.
- C. Dielectric ratings shall be in accordance with C37.06 Table 15 for the specified rated maximum voltage.




INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

- D. The rated closing and latching current (kA, peak) of the circuit breaker shall be 2.6 times the rated short-circuit current. Maximum permissible tripping delay (duration of short-time current) shall be 1 second.
- E. DC time constant of rated short-circuit current shall be 45 m-sec.
- F. Prospective transient recovery voltage ratings for a breaker rated maximum voltage that is greater than 100 kV shall be the ratings with a first pole to clear factor (k_{pp}) of 1.5.
- G. Capacitance current switching shall be the Class C0, C1, or C2 in accordance with the CIRCUIT BREAKER DATA SHEET.
- H. If single-pole trip is indicated on the CIRCUIT BREAKER DATA SHEET, all components shall be as required for single pole trip and reclose.
- I. Rated standard operating duty (rated operating sequence) shall be in accordance with IEEE C37.04 for rapid auto-reclosing duty as specified in the CIRCUIT BREAKER DATA SHEET
- J. The circuit breaker shall have the mechanical endurance that is indicated on the CIRCUIT BREAKER DATA SHEET.
- K. Circuit breaker construction:
 - 1. Degree of protection for operating mechanism shall be 3S in accordance with NEMA 250.
 - 2. All circuit breaker materials shall be in accordance with the referenced ASTM standards.
 - 3. Circuit breakers tank shall be welded-seam steel plate, or shall be aluminum, assembled with the operating mechanism to form a rigidly mounted unit on a structural steel frame. Aluminum plate shall conform to the requirements of ASTM B209M. Tank connections shall have bolts and gaskets. Tank connections provided for use by the OWNER shall have bolted covers and cover gaskets.
 - 4. If the internal working pressure if pressure vessels is greater than 200 kPa, the pressure vessel shall have provisions for pressure relief that meet the functional and testing requirements of ASME BPVC Section VIII, Division 1, Part UG, Clauses 125 through 136. The relief devices shall have certification.
 - 5. Pressurized components shall conform to IEEE C37.04 and applicable state and local regulations. SUPPLIER shall obtain an ASME Code Stamp. The site location is specified in the CIRCUIT BREAKER DATA SHEET.
 - 6. Eye bolts or lugs or jacking pads shall be provided for lifting the assembled circuit breaker.
 - 7. The main circuit enclosure and auxiliary enclosures shall have inspection windows, hand holes, and manholes as required for the SUPPLIER's recommended inspection and maintenance. All handholes and manholes shall be provided with handles.
 - 8. Terminals on outdoor circuit breakers shall be identified as 1, 3, 5, 6, 4, and 2 in a clockwise pattern around the breaker, so that terminals 1 and 2 are on pole 1; 3 and 4 are on pole 2; and 5 and 6 are on pole 3.
 - 9. Corrosion-resistant cotter pins, fasteners, washers, and locking devices shall be used throughout. All clevises and hangers shall be designed to allow rotating pins to move without excessive wear of cotter pins and other fasteners.

10. Circuit breaker shall be provided with two reliable ground pads for connection of a grounding conductor suitable for specified fault conditions. Ground pads shall be placed on diagonally opposite sides of the breaker support structure. Parts of metallic enclosures connected to the grounding system may be considered as a grounding conductor. All metallic components and enclosures that may be touched during normal operating conditions and are intended to be grounded shall be connected to a ground pad. Control cabinets shall be solidly bonded to the frame or shall include one ground pad. Each grounding pad shall be a two-hole pad in accordance with NEMA CC-1, Figure C-2.
 11. All surfaces exposed to the environment and that are not corrosion resistant shall be protected with a coating. Surfaces which will be inaccessible after assembly shall be protected for the life of the equipment. Protective coatings shall be in accordance with the Guides and Standards of the Society for Protective Coatings (SSPC). Color of the interior of the circuit breaker tank shall be a color that will facilitate ease of inspection and maintenance.
 12. Circuit breaker coating color shall be in accordance with ASTM D1535.
 13. The design of gasket and seals shall be such that the gasket or seals will not be displaced by pressure caused by circuit breaker operation at rated short-circuit current and at related required capabilities.
 14. Wiring of control and auxiliary devices shall be electrically isolated from the main circuit with earthed metallic partitions.
- L. The power circuit breaker insulation and interrupting media of the power circuit shall be SF6 gas. The pressure of breaker insulating gas and the interrupter pressure shall operate at the same single pressure.
1. The SF6 gas shall conform to ASTM D2472. SUPPLIER shall provide sufficient quantities of bottled SF6 gas to properly fill each breaker to operation capacity and support necessary testing activities per manufacturer's recommendations.
 2. The SF6 gas leakage rates from the assembled circuit breaker, including bushings, shall not exceed the limits set forth in IEEE C37.122.3, EPA and state regulations. State shall be defined as the Service Location defined on the CIRCUIT BREAKER DATA SHEET. The time between the manufacturers's recommended normal operating pressure, and recommended gas replenishment shall be not less than 10 years. For other sealed pressure systems, the leakage rate shall not exceed 0.1% per year for a 25 year service period.
 3. Connections shall be provided for the withdrawal of gas from circuit-breaker gas systems, for measuring the moisture content, dielectric strength, and other characteristics of the gas. Withdrawal of gas for these measurements shall not require removal of the circuit breaker from service. Provisions for gas sampling shall be accessible from ground level.
 4. The circuit breaker shall be provided with a gas monitoring system. This shall include the following:
 - a. Pressure gauge
 - b. Gas filling valve
 - c. Pressure relief mechanism in accordance IEEE C37.04.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

- d. Two stage temperature compensated pressure switch with alarm and trip contacts.
 - (1) The first stage contacts of the pressure switch shall close on falling pressure at a density level recommended by the SUPPLIER.
 - (2) The second stage contacts of the pressure switch shall close on further loss of gas pressure and at a density level recommended by the SUPPLIER.

- M. (Optional for Dry-Air Breaker) The power circuit breaker shall be of dead-end tank design utilizing vacuum interruption. The breaker design shall be such that each phase interrupter in its own tank.
 - 1. The dry-air insulation shall conform to ASTM D2472-81.
 - 2. A single dial type gauge shall be provided with a common dry-air system.
 - 3. A sufficient quantity of dry-air shall be furnished with the circuit breaker for conditioning and filling of each tank, bushing and other dry-air filled devices to the proper pressure required for each operation. Any special tools required for the filling shall be furnished by the Vendor.
 - 4. A lock-out switch with ungrounded 125VDC contacts shall be provided to prevent the mechanism from attempting an opening or closure when the gas pressure is too low to safely complete the operation.
 - 5. Connections shall be provided for the withdrawal of dry-air from circuit-breaker dry-air systems, for measuring the moisture content, dielectric strength, and other characteristics of the dry-air. Withdrawal of dry-air for these measurements shall not require removal of the circuit breaker from service.
 - 6. A three-way valve shall be furnished on the dry-air system to allow easy calibration, removal and or replacement of the pressure switch/gauge without having to evacuate the dry-air system.

- N. Circuit breaker operating mechanism and stored energy system:
 - 1. The operating and stored energy system auxiliaries shall operate from the control and auxiliaries voltage as indicated in the CIRCUIT BREAKER DATA SHEET. The stored energy system for the open and close operation of circuit breaker shall be spring, hydraulic, compressed gas, or a hybrid system.
 - 2. Sufficient protection and alarm devices shall be supplied to prevent damaging the breaker and to detect any malfunction. Protection and alarm devices include the following, as applicable to the type of system.
 - a. Pressure gauges connected to read tank pressure at each storage level.
 - b. Pressure control switch for compressor motors.
 - c. Relief valves or other devices at each storage level.
 - d. Manually operated drain valves in the lowest point of the system at each storage level for draining the moisture and oil.
 - e. Supply check valve.
 - f. Supply shutoff valves at each storage level.
 - g. Alarm pressure switch set to close its contacts at appropriate point above minimum operating pressure.
 - h. Minimum-closing-pressure switch, which shall prevent the electrical control system from attempting to close the breaker, when the pressure of the interrupting medium is below the minimum value



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

required to complete a close-open operation at rated short-circuit current or at related required capabilities.

- i. Lockout pressure switch to prevent the mechanism from attempting to close (or open) the breaker when the pressure of the mechanism is too low to obtain proper contact velocities.
 - j. Minimum opening-pressure switch, which shall prevent the electrical control system from attempting to open the breaker when the pressure of the interrupting medium is below the minimum value required to complete an opening operation at rated short-circuit current, or at related required capabilities. As an alternative, this switch shall cause the breaker to be opened automatically or prevent the breakers from closing or reclosing when the pressure is below to this minimum value.
 - k. Means to prevent overcharging of spring(s).
 - l. Means to prevent insufficiently charged spring(s) from attempting a close operation.
 - m. Mechanical indication that spring(s) is charged, not fully charged, and discharged.
3. All cabinets shall have a removable conduit plate for field installed conduit.
 4. The wiring for all control devices shall terminate on terminal blocks adjacent to the provisions for field installed conduit.
 5. Operator control shall include provisions to block automatic operation of the breaker during operator maintenance.
 6. A means of local manual mechanism operation shall be provided. Operation shall not cause movement of the breaker main contacts.
- O. The circuit breaker nameplate shall include all information listed in C37.04. Nameplate data shall have metric units. If the insulating gas is a mixture, the mass of each gas shall be included in the nameplate. The nameplate shall be mounted on the main control cabinet.
 - P. Circuit breaker noise level shall be in accordance with NEMA SG4.
 - Q. The control system supply voltage shall conform to the requirements of IEEE C37.06.
 - R. The breaker shall be electrically release-free (trip free) as defined in IEEE C37.100.
 - S. The design of the operating mechanism shall be tested together with the circuit breaker interrupter design to ensure positive opening of the circuit breaker and circuit interruption, whether the tripping impulse is received in the fully closed or any partially closed position.
 - T. Closing the circuit breaker into a standing trip signal or opening the circuit breaker into a standing close signal shall not cause damage to the circuit breaker. If the release or tripping circuit is completed through an auxiliary switch, electrical release or tripping will not take place until such auxiliary switch is closed.
 - U. The circuit breaker shall have two (2) circuit breaker trip coils and one (1) close coil. Each coil shall be electrically, magnetically, and physically independent. Each coil circuit shall have a means of disconnect and protection in each pole as indicated on the CIRCUIT BREAKER DATA SHEET. The use of a protective fuse and fuse holder shall allow replacement of the fuse.



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

- V. The circuit breaker shall be equipped with auxiliary contacts that change state with the breaker main contacts. The number of breaker auxiliary contacts is specified in the CIRCUIT BREAKER DATA SHEET.
 - 1. One set of auxiliary contacts shall change state when the breaker main contacts reach the open position, and one set of auxiliary contacts shall change state when the contacts reach the closed position.
 - 2. The circuit breaker shall have one (1) normally open contact and one (1) normally closed contact, each of which has set point for the change of state, individually adjustable over the entire travel of the operating mechanism.
- W. The circuit breaker shall be equipped with an operation counter that is mounted in the breaker control cabinet.
- X. An indicator that shows the position of the main contacts shall be provided. The closed position shall have a red indicator and marked with the symbol "CLOSED". The open position shall have a green indicator and marked with the symbol "OPEN". The contact position indicator shall be mounted in the breaker control cabinet and visible when the cabinet door is closed.
- Y. For an assembly of three single pole breakers, the control system shall control each individual pole for close and trip operation.
- Z. For an assembly of three single pole breakers, the control system shall control each individual pole for close and trip operation.
 - 1. Breaker pole control shall be electronically and mechanically independent.
 - 2. Each pole of the circuit breaker shall be equipped with auxiliary contacts that change state with the breaker main contacts
 - 3. Each pole shall have two (2) circuit breaker trip coils and one (1) close coil. Each coil shall be electrically, magnetically, and physically independent.
 - 4. Each pole shall be equipped with an operation counter and an indicator that shows the position of the main contacts as described in 2.03.W.
 - 5. The pole disagreement time shall not exceed three (3) cycles (± 0.5 cycles) for a breaker with independent pole operators.

2.04 CIRCUIT BREAKER BUSHINGS:

- A. The circuit breaker bushing shall conform to IEEE C37.017 and IEC 60137.
- B. The dielectric and thermal ratings of the bushing shall be coordinated with the ratings of the associated circuit breaker. Ratings shall be the standard ratings of IEC 60137.
- C. Minimum creepage over the ceramic bushing insulating surface shall be in accordance with Annex C of IEEE C37.100.1. Polymer minimum creepage shall be determined with the principles of IEC 60815-1 and IEC 60815-3.
- D. Bushing mounting angle shall be per IEEE C37.017.
- E. Bushing cantilever withstand load shall be in accordance with Table 1 of IEC 60137.



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

- F. Each external bushing connection shall have a four-inch by four-inch, four-hole aluminum pad in accordance with Figure C-4 of NEMA CC 1. SUPPLIER shall provide larger pads if necessary to meeting circuit breaker rating requirements. Pads shall conform to NEMA CC 1 standards figures.
- G. Bushing terminals shall be silver or tin plated.
- H. Bushings shall make a gas-tight seal to the circuit breaker. The seal shall contain gas pressures to prevent SF6 leakage or entry of moisture or oxygen throughout the range of service conditions and equipment ratings.
- I. (Optional for Dry-Air Breaker) Bushings shall have a puncture strength greater than dry flashover valve.
- J. All porcelain used shall be manufactured by the wet process and shall be homogeneous, free from laminations, cavities, and other flaws, and impervious to moisture. The glazing shall be free from imperfections such as blisters or burns.

2.05 CLOSING RESISTORS:

- A. A circuit breaker closing resistor system for each pole shall be provided when indicated on the CIRCUIT BREAKER DATA SHEET.
- B. The circuit breaker ratings shall apply with the closing resistor inserted in the circuit between the circuit breaker poles, with the circuit breaker tripped, and with the circuit breaker closed. The ratings that shall apply include the following:
 - 1. Power frequency and impulse withstand voltage, pole-to-pole across the open switching device, and across the isolating distance.
 - 2. Transient recovery voltage.
 - 3. Short circuit current, short circuit breaking current, short circuit making current, short time current, short time withstand current, and closing and latching current.
 - 4. Peak withstand current.
 - 5. Standard operating duty (rated operating sequence).
- C. The closing resistor shall have the ohm value shown on the CIRCUIT BREAKER DATA SHEET.
- D. Each closing resistor shall be operated by the circuit breaker contact operating mechanism.
- E. The closing resistor system shall have the following functions:
 - 1. During the circuit breaker closing operation, insert the closing resistor between the circuit breaker high voltage contacts 10 to 12 m-sec before the circuit breaker contacts close.
 - 2. Remove the closing resistor from the circuit before the circuit breaker contacts begin an opening operation. The breaker opening operation shall include a breaker protective relay trip signal.

2.06 BREAKER CONTROLLED SWITCHING:

- A. When a circuit breaker controlled switching system is required, as indicated on the CIRCUIT BREAKER DATA SHEET, the closing control systems shall have control, monitoring, and communications functions.
 - 1. The control system shall have individual electronic control of each pole.




INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

2. Individual electronic control of each pole shall have field adjustable set points on the voltage waveform for each terminal.
 3. The system shall have adaptive control for each pole. Adaptive control shall be based on the following variables, and all necessary variable sensors and transducers shall be provided. All data shall be stored and available electronically for use by the OWNER.
 - a. Contact travel time.
 - b. Ambient temperature.
 - c. Control voltage.
 - d. Drive energy for hydraulic stored energy operating mechanism.
 - e. Gas density.
 - f. Time from last breaker operation.
 4. Current and voltage Oscillography available electronically for use by the OWNER.
 5. A communications interface shall be provided as indicated in the CIRCUIT BREAKER DATA SHEET.
- B. The closing control shall have the following features.
1. The control shall detect line trapped charge voltage polarity and magnitude.
 2. The control shall have field adjustable time set points for close control. The range of set points shall extend beyond the time of zero magnitude gap voltage.
 3. The control time data shall be determined from detection of breaker close command (trip coil energization) and current inception through the contacts.
 4. Data for the rate of decay of dielectric strength across the breaker contacts shall be submitted in accordance with the requirements of Owner.
- The closing control system, all specified sensors and transducer, and the breaker shall be tested for controlled closing. The closing control shall successfully complete the test if the result is current initiation within the defined optimum target window.
- C. The tripping control shall have the following features:
1. Data for the rate of rise of dielectric strength across the breaker contacts shall be submitted in accordance with the requirements of Owner.

2.07 CURRENT TRANSFORMERS:

- A. The circuit breaker bushing current transformers shall conform to IEEE C57.13.
- B. The current transformers requirements shall be as specified on the CIRCUIT BREAKER DATA SHEET.
- C. For C57.13.6 High Accuracy current transformers, the accuracy shall be 0.15 and the metering burden shall be E-0.04. (Not used).
- D. The short time thermal and the mechanical current ratings of the bushing current transformer shall be coordinated with the ratings of the associated circuit breaker.
- E. Provisions shall be made to prevent arcing across the enclosure insulation.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

- F. Current transformer secondaries shall be terminated at shorting terminal blocks. A separate lead without wire splices shall be brought out from each CT tap to a single terminal block for each CT. Shorting terminal shall be as specified on the CIRCUIT BREAKER DATA SHEET.
- G. Each current transformer shall have provisions for testing without the removal of gas in the circuit breaker.

2.08 CIRCUIT BREAKER CONTROL AND AUXILIARIES:

- A. The circuit breaker control and auxiliary cabinets shall conform to NEMA 250.
- B. Circuit breaker electrical control shall conform to the requirements of IEEE C37.12.
- C. All components required for circuit breaker operation and maintenance, including circuit breaker controls, indicating devices, components for remote data transfer, CT leads, terminal blocks, and grounding connections that are provided for use by the OWNER shall be in one control cabinet.
- D. Degree of protection shall be per the CIRCUIT BREAKER DATA SHEET and in accordance with NEMA 250.
- E. The control cabinet shall have full width hinged doors having provisions for padlocking and provided with guides to hold the doors in the open position. The bottom plate of the control enclosure shall be acceptable for field installation of schedule 40 rigid galvanized steel conduit.
- F. All components in the cabinets shall be accessible for maintenance and adjustments. All control and indicating devices and all cable terminations that are provided for use by the OWNER shall be mounted no more than 1700 mm above the base of the circuit breaker support frame.
- G. Wiring from all terminals on all devices in the control and auxiliary cabinets for connection to the OWNER’s systems shall be terminated on terminal blocks located in the control cabinets. Terminal blocks shall accommodate OWNER’s ring tongue external cable wiring. All terminal blocks shall be suitable for up to No. 8 AWG wire. Terminal blocks for OWNER AC/DC power, trip, and close connections shall be suitable for up to 1/0 AWG wire.
- H. All wires shall be permanently labeled at each end for identification purposes.
- I. When individual poles require field assembly, SUPPLIER shall provide a pre-connectorized system for interconnecting wiring between poles. All details including, but not limited to, cable/conduit and connector sizes shall be provided at the time of bid.
- J. When single-pole trip and reclosing are required on the CIRCUIT BREAKER DATA SHEET, the circuit breaker control system shall have capability for single-pole and three-pole operation.
- K. When required as shown on the CIRCUIT BREAKER DATA SHEET, there shall be one local breaker “close-open” control switch mounted within the breaker control cabinet. The local breaker control switch shall be two-position to close and open the breaker contacts, and spare contacts wired to terminal blocks for use by OWNER. Nameplates identifying each function shall be provided.
- L. When required as shown on the CIRCUIT BREAKER DATA SHEET, there shall be one breaker control “normal-maintenance” two position switch mounted within the breaker control cabinet. The “normal-maintenance” switch shall block all breaker remote control signals. The switch shall have spare contacts wired to terminal blocks for use by OWNER. Nameplates identifying each function shall be provided.




INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

- M. Each control cabinet shall have circuit protective devices for the OWNER's low voltage ac and dc auxiliary power supplies. The cabinet shall have an individual branch circuit molded case circuit breakers for the dc closing circuit; and ac heaters, lighting, receptacles, motors, etc.
- N. A copper grounding bar with a minimum dimension of 0.635 cm x 2.54 cm x 15.24 cm shall be bolted inside the control cabinet to terminate all control and instrumentation grounding wires.
- O. All cables internal to the control and auxiliaries cabinets shall have a flame retardant construction that passes the VW-1 (Vertical-Specimen) Flame Test of Underwriters Laboratories 1581, Section 1080.
- P. Each device mounted in the breaker control cabinet shall have a permanently attached device identification nameplate that is mounted on, or immediately adjacent to the device. The nameplate shall be phenolic or metal, and the device identification shall be made by engraving the nameplate. The device identification shall be identical to the device identification that is shown on schematic and wiring diagrams that are included with the breaker instruction manuals.
- Q. The exterior and interior of control and auxiliaries cabinets shall be finished as indicated on the CIRCUIT BREAKER DATA SHEET.
- R. If heaters are required, a heater thermostat control system shall be furnished as required to prevent condensation over the specified range of relative humidity. Heaters with exposed elements shall be supplied with safety shields.
- S. Lighting fixtures and lamps shall be permanently installed in each control cabinet and each pole mechanism cabinet if applicable. The lighting equipment shall provide 270 lux of illumination on all control and indicating devices without supplemental lighting. The control cabinet and each pole mechanism cabinet if applicable shall have one (1) 20 amperes, 120 V ac, two pole, three wire, grounding type, ground fault interrupting, duplex receptacle.

2.09 SEISMIC QUALIFICATION:

- A. Seismic qualification level shall be as indicated on the CIRCUIT BREAKER DATA SHEET. Definition of these qualification levels, methods for determining the required level based on seismicity, and qualification methods shall be in accordance with IEEE 693.
- B. Electrical functionality shall be demonstrated by testing at the performance level. Electrical functionality is the breaker operating duty, i.e. O-0.3 sec- CO-15 sec-CO.
- C. Damping shall be determined by the methods given in IEEE 693, Sub clause 6.9, or Annex A.
- D. The performance level denoted as "Low" requires no testing beyond the apparatus testing required by these specifications.
- E. The performance level denoted as "Moderate" and "High" shall be qualified in accordance with IEEE 693, and Annex C of the Standard.
- F. Where a controlled switching system is required, the seismic qualification shall be the level of the circuit breaker.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

2.10 TOOLS AND SPARE PARTS:


A. Furnish the following:

1. Two (2) manual maintenance closing/opening device.
2. A complete set of special tools, wrenches and other equipment necessary or convenient for maintenance by SUPPLIER or OWNER for each type breaker furnished including any attachments necessary for filling the breaker with SF6 gas if required.
3. Two (2) quarts of touch up paint for each circuit breaker to match finish coat on breakers if finish coat is to be factory furnished.
4. Two (2) set of control relay coils complete with contacts.
5. Two (2) closing coil and Two (2) trip coil.
6. Other accessories regularly furnished with this class of equipment.

2.11 ACCESSORIES:

A. Each cabinet shall contain the following equipment for control, indication and protection of switches, circuit breakers, and associated components:

1. Compressor or pump cutout switch.
2. Pressure gauge on the dry-air system.
3. Mechanism (and gas) housing heaters with thermostatic control. Heaters with exposed elements shall be supplied with safety shields.
4. Emergency circuit breaker trip device.
5. Latch check switch (unless design of breaker for automatic reclosing does not require one).
6. Running time meter for each compressor motor or hydraulic pump.
7. Low pressure alarm switch for compressor lubricating oil.
8. Alarm switch on motors, compressors, or pumps to indicate excessive operating time.
9. Motor for dry-air system shall have a switch to manually disconnect the supply circuit, an undervoltage alarm relay to indicate loss of ac power, and thermal overloads of appropriate rating.
10. Furnish and install in the breaker control cabinet a system to determine breaker contact travel time for contact maintenance.
11. Annunciator (as required by the CIRCUIT BREAKER DATA SHEET) :
 - a. Furnish sufficient points to indicate the output of each alarm contact in the power circuit breaker.
 - b. Furnish two common relay modules, each with one set of alarm control contacts (N.O. or N.C.), and designed so that each relay module may be operated by a selected group of point modules. Selection shall be readily modifiable in the field.
 - c. Supply voltage compatible with circuit breaker control voltage.
 - d. Alarm points shall "lock on" when alarm contacts indicate a trouble condition.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS CIRCUIT BREAKERS SPECIFICATIONS, 337519.13
---	---	---

- e. Engrave legend plates as approved by the ENGINEER to clearly indicate the nature of breaker trouble contacts.
- f. All modules shall be plug-in type to permit easy replacement.
- g. Include operation indicating lights for control cabinet heaters.
- h. Additional requirements per the CIRCUIT BREAKER DATA SHEET.

2.12 SOURCE QUALITY CONTROL:

- A. SUPPLIER shall have an ISO 9000/9001 certified Quality Assurance Program covering quality control and assurance measures. The ISO certified program shall be imposed by SUPPLIER on the work within the scope of these specifications and upon sub-suppliers or subcontractors.
- B. OWNER shall at any time be permitted to have representatives visit SUPPLIER’s factory to examine the circuit breaker or any part to ascertain if the material and processes conform to this specification.
- C. OWNER shall have the option of witnessing production tests.
- D. SUPPLIER shall submit the test protocol to OWNER for approval before conducting the routine tests for which there are no Standards procedures.
 - 1. Circuit breaker(s) shall have design tests, production tests, and conformance tests including the requirements for test reports, shall be made in accordance with IEEE C37.09.

PART 3 - EXECUTION

3.01 SUPPLIER’S FIELD SERVICES:

- A. When indicated on the CIRCUIT BREAKER DATA SHEET, SUPPLIER shall furnish field services in accordance with these specifications if required.

3.02 FIELD TESTING AND COMMISSIONING:

- A. When indicated on the SPECIFIC CIRCUIT BREAKER DATA SHEET, SUPPLIER shall furnish field services in accordance with these specifications if required.
- B. If required, field services include technical oversight of the filling of power circuit breakers and bushings with dry-air.
- C. If assistance or attendance is required, it will be provided by others and they will be instructed to perform tasks under the technical direction of the SUPPLIER’s service personnel. Service personnel of this Contract shall be responsible for the procedures used to test and inspect the equipment, and place the equipment into service.
- D. Standard tools will be provided by others. SUPPLIER’s service personnel shall report with any test equipment and special tools that are required specifically for the type of equipment if required. SUPPLIER’s service personnel shall perform all tests, inspections and adjustments required by the manufacturer and as specified in this Section and other documentation provided by Stillwater if required.
- E. Tests and inspections shall include the following.




INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
CIRCUIT BREAKERS
SPECIFICATIONS,
337519.13

1. Perform manufacturer's recommended standard inspection of all components including checking all connections for tightness, cleanliness, etc.
 2. Complete test and adjustment of circuit breaker stored energy system, breaker operating mechanism, and auxiliary contacts.
 3. Check and adjust contact alignment, clearances, compression, stroke, etc.
 4. Perform operational test manually and by electrical controls.
 5. Measure the impedance of each main contact, internal wiring, and ground connections.
 6. Measure the opening and closing operating duration of each power circuit breaker pole. Tests are to be performed with stored energy systems compressor or pumps de-energized.
 7. Test contact resistance of each pole of each power circuit breaker with a Ductor tester.
 8. Provide a technical description of all tests and record the results.
 9. Test all pressure switches and contacts during dry-air filling for proper operation.
- F. At the end of the commissioning activity, a complete and comprehensive report shall be prepared by the SUPPLIER's services personnel, if required. Report shall be an indexed three-ring binder consisting of the following.
1. Tests performed, what was expected, what was found and adjustments made.
 2. Testing equipment used complete with their calibration dates and certificates.
 3. If more than one circuit breaker is tested, a completely separate report shall be generated. One copy of each report shall be left at the site before SUPPLIER's services personnel leave, and extra copies provided in accordance with the requirements of Owner.

END OF SECTION 337519.13

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, DATA SHEET, 337519.13
---	---	---

SUBSTATION:

SUBSTATION NAME: Kinzie Substation and Hospital Substation

SERVICE LOCATION: Stillwater, Oklahoma

DELIVERY LOCATION:

Kinzie Substation: 201 S Sangre Rd Stillwater, OK 74074

Hospital Substation: 1527W. 7th, Stillwater, OK 74074

GENERAL REQUIREMENTS:

QUANTITY OF CIRCUIT BREAKERS: 6

MAXIMUM VOLTAGE, kV, r.m.s.: 72

BASIC IMPULSE LIGHTNING LEVEL, kV peak: 350

CONTINUOUS CURRENT: 2000 A

SHORT-CIRCUIT CURRENT: 40 kA

CLOSING RESISTORS REQUIRED: YES , NO

CONTRACTOR'S FIELD SERVICES REQUIRED: None at this time. Supplier to provide Field Service pricing as an option. Field Service shall include supervisions, training, and instruction for set-up and commissioning of the breaker for Owner Personnel assembling and operating the breaker.

LIST REPLACEMENT PARTS (NOT ALREADY INCLUDED IN PART 2.10): Two (2) set of control relay coils complete with contacts; two (2) closing coil and two (2) trip coil; two(2) manual maintenance closing/opening device

LIST MAINTENANCE EQUIPMENT REQUIRED (NOT ALREADY INCLUDED IN PART 2.10)Supplier Recommendations

GPS TRIAXIAL IMPACT AND ENVIRONMENTAL RECORDERS: YES , NO

INSULATION AND INTERRUPTING MEDIA: SF6

Note 1: Vendor to provide pricing dry-air type breaker if available.

SERVICE CONDITIONS FOR ALL CIRCUIT BREAKER COMPONENTS:

MAXIMUM AMBIENT TEMPERATURE RANGE: 37 °C

MINIMUM AMBIENT TEMPERATURE RANGE: -10 °C


TWENTY-FOUR HOUR AVERAGE MAXIMUM TEMPERATURE: 31 °C

MAXIMUM SOLAR RADIATION INTENSITY: 1000 WATTS/METER²

ALTITUDE: 930 Feet

MAXIMUM AMBIENT POLLUTION, IEEE C37.010: Heavy

ICE COATING: 0.75 MM

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, DATA SHEET, 337519.13
---	---	---

MAXIMUM WIND SPEED: 90 _____ M/SEC

PRECIPITATION: 37 _____ CENTIMETERS PER YEAR

RELATIVE HUMIDITY RANGE: 38-91 _____ %

SEISMIC RISK CATEGORY: 0.5 _____

SEISMIC SITE CLASS: D _____

STATION LOW VOLTAGE AC POWER SUPPLY: 120/240 (single-phase) _____ PHASE/VOLTS

STATION LOW VOLTAGE DC SUPPLY: 125 _____ VOLTS DC

OPERATING AND STORED ENERGY SYSTEM: AC _____, DC _____, DUAL AC/DC X

DC CONTROL CIRCUIT PROTECTION: FUSED DISCONNECT X, BREAKER _____

AC AUXILLIARY CIRCUIT PROTECTION: FUSED DISCONNECT _____, BREAKER X

CIRCUIT BREAKER RATINGS:

INTERRUPTING TIME: 50 _____ M-SEC

MECHANICAL ENDURANCE (OPERATIONS): IEEE C37.06 or better _____

CAPACITOR CURRENT SWITCHING RATING: Kinzie Substation – Two (2) Breaker with C0 Rating. Hospital Substation – Four (4) Breaker with C0 Rating. _____

CLOSING RESISTOR NOMINAL VALUE: Supplier Recommendation _____ OHMS

SYNCHRONOUS CLOSING CONTROL REQUIRED (CAPACITOR, REACTOR, NA): N/A _____

BREAKER SINGLE POLE TRIP & RECLOSE REQUIRED: YES _____, NO X

AUTO RECLOSING DUTY: 0-0.3sec-CO-15sec-CO _____

SEISMIC QUALIFICATION LEVEL: High _____

BREAKER AUXILIARY CONTACTS PER POLE, PER BREAKER POSITION: Provide necessary internal control and interlocking for SUPPLIER's standard control scheme; provide a minimum of (16) additional type "a" and (16) additional type "b" contacts wired to terminal blocks for implementation of protection and control schemes; provide (1) separate type "a" contact and one (1) separate type "b" contact for use in instantaneous reclosing schemes which shall each have its operating point individually adjustable over the entire travel of the operating mechanism.


BREAKER "CLOSE-OPEN" LOCAL CONTROL SWITCH REQUIRED: YES X, NO _____

BREAKER CONTROL "LOCAL-REMOTE" SWITCH REQUIRED: YES X, NO _____

CIRCUIT BREAKER EXTERIOR COATING COLOR: ANSI 70 _____

CIRCUIT BREAKER INTERIOR COATING COLOR: Supplier Recommendation _____

CIRCUIT BREAKER BUSHINGS:

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, DATA SHEET, 337519.13
---	---	---

BUSHING CONSTRUCTION: Supplier Recommendation

IEC MINIMUM WITHSTAND CANTILEVER LOAD LEVEL: Level I

BUSHING COLOR: Supplier Standard

CIRCUIT BREAKER BUSHING CURRENT TRANSFORMER RATINGS AND ARRANGEMENT:

		Terminals					
		1	3	5	Ratio	Accuracy	TRF
Location		X	X	X	<u>2000/5</u>	<u>C800</u>	<u>2.0</u>
		Y	Y	Y	<u>2000/5</u>	<u>C800</u>	<u>2.0</u>
		Z	Z	Z	=	=	=
		Breaker					
Location		Z	Z	Z	=	=	=
		Y	Y	Y	<u>2000/5</u>	<u>C800</u>	<u>2.0</u>
		X	X	X	<u>2000/5</u>	<u>C800</u>	<u>2.0</u>
		2	4	6			
		Terminals					


X/R RATIO: 17

CIRCUIT BREAKER LOW VOLTAGE/ANCILLARY DEVICE REQUIREMENTS:

TERMINAL BLOCKS: Manufacturer Specified

CT SHORTING TERMINAL BLOCKS: Manufacturer Specified

CONTROL ENCLOSURE NEMA RATING: 4X

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, DATA SHEET, 337519.13
---	---	---

ANNUNCIATOR:

DEVICE MODEL: Manufacturer Specified


POINTS TO BE MOINTORED:

Low SF6 Gas Pressure Alarm	X
Low SF6 Gas Pressure Trip and Block Close	X
Pole Disagreement (for independent pole breakers)	X
Failure of Operating Mechanism to Re-Charge	X
DC Motor undervoltage alarm	X
AC motor undervoltage alarm	X
Excessive mechanism run-time alarm	X
Low mechanism operating pressure.	X

ADDITIONAL POINTS: Local Indication, and any Manufacturer Recommended

MISCELLANEOUS:

ADDITIONAL REQUIREMENTS: -

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, BID DATA, 337519.13
---	---	---

SECTION 337519 – HIGH VOLTAGE CIRCUIT BREAKERS – BID DATA

PART 1 - GENERAL

1.01 GENERAL INFORMATION:

- A. Include exceptions to the Specification 337519 – Circuit Breaker and CIRCUIT BREAKER DATASHEET. Reference Article, Paragraph, Sub-Paragraph, and specific requirement to which the exception is taken.
- B. If Field Services are specified, provide a description of the services and the qualifications of field services personnel.

1.02 QUALITY ASSURANCE:

- A. Summary of Contractor’s Quality Assurance Program.
- B. A list of type test reports for circuit breaker, bushings, and current transformers.
- C. A list of type test reports for circuit breaker with closing resistor.

1.03 REQUIREMENTS:

- A. Recommended replacement parts, list.
- B. Recommended maintenance tools, list.

1.04 CIRCUIT BREAKER RATINGS: (If ratings equal specified ratings, enter “Spec”)

- A. Power-frequency 1 minute dry withstand voltage _____ kV
- B. Lightning impulse full wave withstand voltage _____ kV
- C. Lightning impulse chopped wave withstand voltage _____ kV
- D. Switching impulse terminal-ground withstand (breaker closed) _____ kV
- E. Switching impulse terminal-terminal withstand (on one phase, breaker open) _____ kV
- F. Short circuit and short time current _____ kV
- G. Interrupting time _____ m-sec
- H. Capacitor current switching rating, C0/C1/C2 _____
- I. Closing resistor minimum value (if applicable) _____ ohms

1.05 CIRCUIT BREAKER CONSTRUCTION:

- A. Please provide outline drawings, photographs, illustrations, or descriptive sheets and sketches to describe clearly the construction and dimensions.



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

FORM – TS
HIGH VOLTAGE CIRCUIT
BREAKERS, BID DATA,
337519.13

B. Maximum structural load on circuit breaker foundation (provide sketches showing modules, vector loads, and location(s) of maximum loads):

- 1. Vertical Static _____ N
- 2. Vertical Dynamic _____ N
- 3. Horizontal Static _____ N
- 4. Horizontal Dynamic _____ N

C. Number of series interrupting contacts _____

D. Capacitors required for circuit breaker ratings, e.g. short line fault, TRV (Yes or No) _____

E. Heaters required in the tank for low temperature (Yes or No) _____

F. Temperature below which heater operation is required _____ °C

G. Description of gas monitoring system, including sensors, output contact set-points, and number of output contacts. _____

H. Description of circuit breaker stored energy system. _____


I. Description of overpressure protection (by system design or pressure relief devices – see ASME BPV Code, Section 8, Division 1, Subsection A). _____

J. Design pressure of main circuit breaker tank _____ kPa

K. Design pressure of compressed gas/fluid stored energy system (if applicable) _____ kPa

L. Description of protective coating system for breaker, support, control cabinet. _____

M. IEEE 693 seismic qualification level _____

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS HIGH VOLTAGE CIRCUIT BREAKERS, BID DATA, 337519.13
---	---	---

1.06 CLOSING RESISTOR (IF SPECIFIED):

- A. Nominal resistance _____ ohms
- B. Closing resistor rated temperature _____ °C
- C. Maximum resistor temperature _____ °C
- D. Resistance at maximum resistor temperature _____ ohms
- E. Minimum resistor temperature _____ °C
- F. Resistance at minimum resistor temperature _____ ohms
- G. Number of re-closing operations after one C-O without exceeding maximum rated resistor temperature _____
- H. Closing resistor manufacturer _____
- I. Description of closing resistor material and fabrication. _____

- J. Description of closing resistor operating mechanism and operation sequence. _____


1.07 CONTROLLED CLOSING SYSTEM (IF SPECIFIED):

- A. Description of controlled closing system, including operation, manufacturer/model. _____

1.08 CURRENT TRANSFORMERS (CT'S):

- A. CT short time mechanical current rating, A _____ r.m.s.
- B. CT short time thermal current rating, A _____ r.m.s.

END OF SECTION 337519 – BID DATA

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHNICAL SPECIFICATIONS, CONTRACT CLOSEOUT, SECTION 017801
---	---	--

SECTION 017801 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 SUMMARY:


- A. Related Work Specified Elsewhere:
 1. Prerequisites for final acceptance and payment: Attachment A Commercial Terms & Conditions.
 2. Submittals: SECTION 013301.
 3. Manufacturer's field services: SECTION 017501.
 4. Warranties: Attachment A Commercial Terms & Conditions.

1.02 REQUIREMENTS FOR FINAL PAYMENT:

- A. General: Unless otherwise required elsewhere by this Contract, the following shall be furnished to Owner prior to application for final payment.
 1. Maintenance and operating instructions.
 2. Guarantees.
 3. Certifications of inspection.
 4. "Record Document" Submittals.
 5. Other documents as required by Contract Documents.
 6. Spare parts.
- B. Final Payment: Commercial Terms & Conditions.

1.03 PROJECT RECORD DOCUMENTS:

- A. General: Maintain at the Supplier's facilities one record copy of:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other Modifications to the Contract.
 5. Approved Shop Drawings, product data, and Samples.
- B. Recording:
 1. Label each document "PROJECT RECORD" in neat, large, printed letters.
 2. Record information concurrently with fabrication or Field Services progress.
 3. Record Drawings: Legibly mark to record actual construction:
 - a. Where Submittals are used for mark-up, record a cross-reference at corresponding location on Drawings.
 - b. Field changes of dimension and detail.
 - c. Changes made by Change Order or other Modifications. Note related Change Order numbers where applicable.
 - d. Details not on original Contract Drawings.
 4. Record Specifications and Addenda: Legibly mark each Section to record:
 - a. Manufacturer, trade name, catalog number, and Supplier of each product and item of Equipment actually furnished, particularly optional and substitute items.
 - b. Changes made by Addendum, Change Order, or other modifications.
 - c. Related Submittals.
 5. Record Product Data: Maintain one copy of each product data Submittal, and mark-up significant variations in actual Work in comparison with submitted information.
 - a. Include both variations in product as delivered to Point of Delivery, and variations from manufacturer's instructions and recommendations for installation.
 - b. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily observed. Note related Change Orders and mark-up of record drawings and specifications.
 6. Miscellaneous Record Submittals: Refer to other Sections of these Specifications for requirements of miscellaneous record keeping and Submittals in connection with actual performance of the Work.

	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	FORM – TS TECHINICAL SPECIFICATIONS, CONTRACT CLOSEOUT, SECTION 017801
---	---	---

7. Instruction Books and Operating Manuals: Specified in SECTION 013301.
8. Electronic Documentation:
 - a. Provide electronic versions of record documents showing "as-constructed" conditions, master field drawing list showing final revisions, instruction books, and operating manuals on CD-ROM or flash drive in searchable Adobe PDF and AutoCAD 2012 or later.
- C. Delivery:
 1. Deliver Record Documents to Owner.
 2. Accompany submittal with transmittal letter in duplicate, containing:
 - a. Date.
 - b. Contract title and number.
 - c. Supplier's name, address, and telephone number.
 - d. Number and title of each Record Document.
 - e. Signature of Supplier's authorized representative.

1.04 WARRANTIES AND BONDS: Specified in Attachment A Commercial Terms & Conditions.

PART 2 - PRODUCTS - Not Applicable.

PART 3 - EXECUTION - Not Applicable.

END OF SECTION 017801


	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	EXHIBIT #1 & #2 GAUARANTEED DATES, MILESTONE PAYMENT & CONCELLATION SCHEDULE
---	---	---

EXHIBIT 1 – GUARANTEED DATES

ITEM	No Earlier Than* Delivery Date	Substantial Completion (Installed, Filled, Dressed, and Tested) No Later Than Date
Two (2) 69kV Circuit Breaker at Kinzie Substation – C0 Rating	August 3, 2023 ⁺	January 12, 2024
Four (4) 69kV Circuit Breaker Hospital Substation – C0 Rating	August 3, 2023 [^]	February 12, 2024
Submittals – As Defined in 013301 Appendix A		

*Supplier may not deliver the Equipment, and Owner will not be obligated to accept delivery of the Equipment before these dates unless prior written approval is provided by the City of Stillwater.

*If requested lead time for deliveries cannot be met, supplier to provide alternative equipment delivery dates for review.

[^]Breakers for both stations may be delivered at the same time to Kinzie in order to reduce bid price and potential cost escalations.

EXHIBIT 2 – MILESTONE PAYMENT & CANCELLATION SCHEDULE

PAYMENT TERMS

Upon meeting or successful completion of the set forth dates for required documents, fabrication and delivery performed by the Supplier, the Owner shall pay the Supplier for a percentage of the contract value as follows for each breaker (Seller to provide recommendation or alternate payment milestones):

___% _____
 ___% _____
 ___% _____
 ___% _____

Note that all invoices are due Net 30 days.

CANCELLATION TERMS

The Owner may cancel an order only after written notice to Seller. Should this Contract be cancelled by Owner due to no fault of the Supplier, the Owner shall pay the Supplier a percentage of the contract value for each breaker as follows (Seller to provide recommendation):


	INVITATION FOR BID SUA BID #19-22/23 69KV Circuit Breakers Issued: January 21, 2023	EXHIBIT - A BID FORM
---	---	--

EXHIBIT A – BID FORM

Note: Please type or use black or blue ink. The City of Stillwater (City) /Stillwater Utilities Authority (SUA) reserves the right to reject any and all Bids when such rejection is in the interest of the City/SUA. *The Summary Bid Form included in the bid submittal document shall have a tab attached for easy identification.*

Instructions: Having carefully examined the **BID #19-22/23** and all its attachments we hereby propose to furnish and deliver in compliance with your official notice, *Specifications*, and *Commercial Terms and Conditions*:

69kV Circuit Breakers			
Description	Fill in Price (Good for 30 days)	Fill in Price (Good for 60 days)	Fill in Price (Good for 90 days)
Six (6) 69kV Circuit Breaker; Transportation, furnish required site utilities	\$	\$	\$
BIDDER'S TOTAL PRICE	\$	\$	\$
Option: Dry-Air Option Cost	\$	\$	\$
Spare Parts (Note 1)	\$	\$	\$

***Maximum Price Percentage Increase per Quarter –** The City will consider a quarterly price increase up to the percentage provided by the bidder or the percentage change in the south urban region consumer price index during the immediate past quarter as determined by the U.S. Bureau of Labor Statistics, whichever is less. The bidder shall be required to notify the City in writing 30 days in advance of an anticipated price increase before any increase will be considered.

Note 1: Vendor provide spare parts cost as an option (per technical specification section 2.10).

BID BOND

Attached hereto is a bid bond for the sum of 5% of the bid total (Total Bid shown on Bid Schedule 1) made payable to the Stillwater Utilities Authority, Stillwater, Oklahoma. The Bidder agrees that the accompanying bid bond shall become the property of the SUA should the Bidder fail or refuse to execute the contract or to furnish the required bonds within the specified time frame.

BIDDER ACKNOWLEDGEMENTS

The undersigned agrees that, if required in Notice to Bidder, the accompanying Bid bond or equivalent security shall become the property of the SUA should the Bidder be selected as the Successful Bidder and then fail or refuse to execute the Contract or furnish bonds as called for in this BID within the time provided and required.

Bidder's Company Name: _____

Authorized Signature Here ▶ _____

Printed Name: _____

RETURN THIS ENTIRE BID PACKET



INVITATION FOR BID
SUA BID #19-22/23
69KV Circuit Breakers
Issued: January 21, 2023

**FORM - NONB
NOTICE OF NO BID**

NOTICE OF NO BID

This sheet is provided for the convenience of prospective Bidders submitting a no bid response to solicitations.

REASON FOR NO BID:

- 1. Cannot comply with specifications
- 2. Cannot meet deliver requirements
- 3. Cannot identify the item(s)
- 4. Do not regularly manufacture or sell the type of item(s) involved
- 5. Other (Specify)

Name and address of firm (include zip code)

Signature

Title

Bid #SUA 19-22/23
69KV Circuit Breakers

City Clerk
City of Stillwater
723 S. Lewis
Stillwater OK 74076

Ref. Bid No. #SUA 19-22/23 _____