
REQUEST FOR BID
TRANSFORMERS - *Electrical Distribution Rehabilitation – Phase 1*
South Dakota Science and Technology Authority
SDSTA Contract # 2024-30
November 14, 2024

The South Dakota Science and Technology Authority (SDSTA) is seeking bids for procurement of **Unit Substation Transformers** at the Sanford Underground Research Facility (SURF). Documents included in this Request for Bid include:

- A. This Request for Bid
- B. Specifications 26 05 00, 26 08 13, 26 11 16, 26 24 16
- C. Draft contract

1.0 Background

SDSTA is a quasi-governmental agency established by the State of South Dakota to operate and manage SURF at the former Homestake Gold mine in Lead, SD. This facility has been rehabilitated and developed to support a variety of scientific experiments, including physics, biology, geology, and others.

SDSTA is undergoing a project to rehabilitate an electrical substation located 4850 feet underground. The project involves replacement and relocation of existing medium voltage equipment and cabling. Power is distributed at SURF at 12,470 volts and 4,160 volts on multi-conductor armored cables with overall outer jackets.

2.0 Scope

This RFB includes the following:

- 2.1 **One 12.47 kV Primary, 4160-volt Secondary, 1500 kVA, Dry-Type, Unit Substation** with Transformer and Secondary-Side Fused Disconnect Switch with ratings, construction, configuration, and accessories as indicated in section 2.3.A (Transformer 1) and section 2.4 (Secondary Equipment) of specification 26 11 16 – UNIT SUBSTATION – DRY TYPE and on associated drawing 261116-GA – Transformer General Arrangement.
- 2.2 **One 12.47 kV Primary, 480-volt Secondary, 500 kVA, Dry-Type, Unit Substation Transformer** with ratings, construction, configuration, and accessories as indicated in section 2.3.B (Transformer 2) of specification 26 11 16 – UNIT SUBSTATION – DRY TYPE and on associated drawing 261116-GA – Transformer General Arrangement.
- 2.3 **One 480-Volt, 3-Phase, 4-Wire, Main Distribution Panelboard** with ratings, construction, configuration, and accessories as indicated in section 2.2 (Manufactured Units) of specification 26 24 16 – PANELBOARDS, in addition to the following:

- 2.3.1 Minimum 600-Amp Tinned Buss
- 2.3.2 600-Amp Main Circuit Breaker
- 2.3.3 Bolt-on, molded-case branch circuit breakers
- 2.3.4 Eight (8) 100-Amp, 3-Pole, LSIG, Feeder Circuit Breakers
- 2.3.5 Two (2) 200-Amp, 3-Pole, LSIG, Feeder Circuit Breakers
- 2.3.6 Provisions for Two (2) Future 100-Amp Frame, 3-Pole Feeder Circuit Breakers
- 2.3.7 Provisions for Two (2) Future 250-Amp Frame, 3-Pole Feeder Circuit Breakers
- 2.3.8 Provisions for One (1) Future 400-Amp Frame, 3-Pole, Feeder Circuit Breaker
- 2.3.9 Coordinate Short-Circuit Rating with Transformer 2 of this RFB
- 2.3.10 NEMA 12 Enclosure
- 2.3.11 Wall-mount or free-standing

3.0 SDSTA Additional Requirements

- 3.1 The manufacturer shall meet materials, construction, marking, testing, and certification requirements identified in specifications 26 05 00, 26 08 13, and 26 11 16.
- 3.2 Date of manufacture must be not more than one year prior to date of receipt.
- 3.3 Equipment must be transported on a vertical shaft conveyance. The nominal dimensions that fit inside the Ross Cage conveyance are 54" wide by 145" deep by 142" high. The maximum payload capacity of the Ross Cage is 13,000 pounds. Equipment, including containers, transport spools, devices, and attachments, must fit within the nominal cage dimensions and capacity limits. A height allowance of 18 inches should be included for a standard rail car used to load and unload equipment onto the cage and for transportation in the underground drifts.
- 3.4 All proposed cable and equipment must meet the BUY AMERICAN REQUIREMENT FOR INFRASTRUCTURE PROJECTS.

4.0 Schedule

The activities noted in the Scope section above should commence following the award of the contract. The schedule for completion of this project is negotiable and flexible to accommodate the contractor's availability. The proposed schedule for the project is:

RFB Posted.....	11/14/24
RFB Responses Due.....	12/12/24
Contract Awarded By (Target).....	01/09/25
Preferred Delivery Date.....	ASAP

5.0 Progress Reporting and Communication

The SDSTA project manager identified in the contract will be the contact person for this procurement. At a minimum, report any delays due to materials, production, or delivery immediately to the project manager.

6.0 Bid Elements

The bid in response to this RFB must contain the following:

- 6.1 Evidence of experience with federal subcontracts.
- 6.2 Product data sheets for the exact proposed product.
- 6.3 Written exceptions to RFB and/or product specifications.
- 6.4 Separate line item showing unit cost and total cost for each product.
- 6.5 Shipping costs.
- 6.6 Total bid cost.
- 6.7 Estimated delivery schedule.
- 6.8 Warranty information.
- 6.9 Proof that each product meets the BUY AMERICAN REQUIREMENTS FOR INFRASTRUCTURE PROJECTS.

7.0 Bid Requirements

- 7.1 Proposers should submit an electronic copy (.pdf format) of the bid to:

Shelly Nisly
SD Science and Technology Authority
630 East Summit Street
Lead, SD 57754
mnisly@sanfordlab.org

- 7.2 Questions must be sent in writing by email to Shelly Nisly (mnisly@sanfordlab.org). Answers will be emailed to all prospective proposers and posted to the sanfordlab.org website.
- 7.3 The bid period may be extended at the discretion of the SDSTA based on the quantity and/or complexity of questions. Any notices of extension of time to respond will be distributed to all prospective proposers.
- 7.4 All communications regarding this procurement between RFB release and contract award shall be directed to Shelly Nisly. Communications with other SDSTA staff regarding this procurement in advance of the contract award are not allowed.

8.0 Selection Process

The SDSTA will review all submitted bids for adherence to this request's requirements and capabilities and select the firm providing the Lowest Cost – Technically Acceptable bid.

Revision History

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
01	5/17/2022	NA	NA	Initial issue	CCR 573
02	12/1/2022	NA	NA	Change document number from OC to COM	CCR 655