

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
REQUEST FOR PROPOSALS
Replace Power Cable to East Switchyard
RFP #2022-24

Register for Site Visit:	07/29/2022 (by 5:00 P.M.)
Mandatory Site Visit:	08/01/2022 (10:00-12:00 P.M.)
Questions Submitted:	08/04/2022 (by 5:00 P.M.)
Questions & Answers Posted:	08/09/2022 (by 5:00 P.M.)
Proposal Due Date:	08/23/2022 (by 2:00 P.M.)

1. PURPOSE:

This Request for Proposal (RFP) is issued by the South Dakota Science and Technology Authority (SDSTA) for construction services to replace power cable to the East Switchyard. An individual firm will be selected for a fixed price contract based on the total of the quantities and unit costs listed on the project bid sheet, demonstrated competence, and qualifications for the required work. The work will be performed on critical electrical distribution infrastructure in and around the Yates Complex at the Sanford Underground Research Facility (SURF). Documents included with this RFP include:

- A. Draft Contract (2022-24)
- B. Draft Construction General Conditions Agreement
- C. Bid Security Form (to be submitted with proposal)
- D. Payment and Performance Bond Form (informational – to be submitted with contract)
- E. SDSTA Design Documents
 - a. SDSTA Drawings – Replace Cable East Switchyard – Drawing Set
 - b. SDSTA Specification – Replace Cable East Switchyard -Technical Specification
- F. Contractor Pre-Qualification & ESH Questionnaire

2. PROJECT BACKGROUND/EXISTING CONDITIONS:

SURF's East Switchyard distributes power to the Yates Complex, and to underground infrastructure through the Yates Shaft. Power to the switchyard is supplied partly on overhead lines and partly on buried cables that run through the Yates Tramway (See Figure 1 - Vicinity Map on next page).

The East Switchyard was originally constructed to be a 69kV to 12kV substation in 1995. Power to the East Switchyard is transmitted from the Oro Hondo Substation on overhead lines that span approximately 2600 feet across Kirk Canyon. The overhead lines then transition to direct-buried high-voltage cables that run approximately 1000 feet through the Yates Tramway. From the tramway the cables rise vertically through 75-foot bore holes up to the East Switchyard.

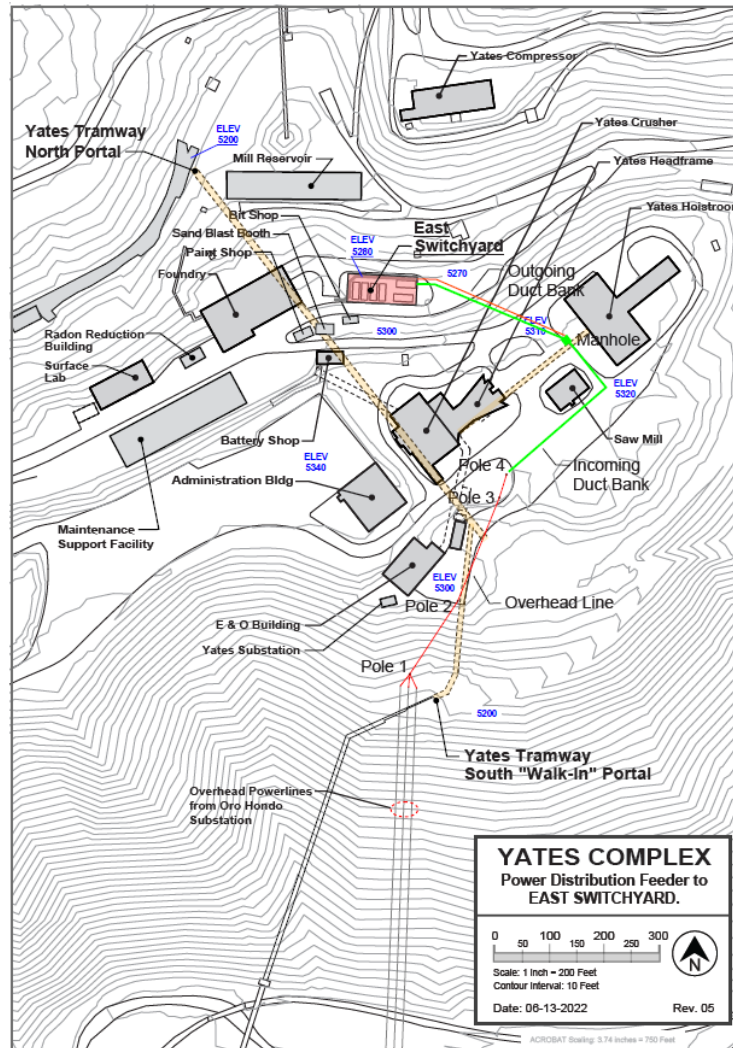


Figure 1 – Vicinity Map

Known issues with the cables in the tramway, and the existing poor conditions of structural members and ground support in the tramway, lead to uncertainty in the reliability of power to the switchyard and an elevated risk of a cable failure. Recovery from a cable failure in the tramway would require a power outage of significant duration and represents a major vulnerability for SURF operations.

Considering the history, risks, and consequences associated with the cable feeding the switchyard, and the existing conditions in the Yates Tramway, it is imperative that the cable be replaced, and the new cable follow a new route that is outside of the tramway.

3. SCOPE OF WORK:

This project will replace the buried section of medium voltage feeder cable that runs through the Yates Tramway to the East Switchyard. The new cable will be installed following a new route (See Figure 2) that will include overhead lines starting near the Yates Tramway Portal location going up to the Yates Complex Yard where it will transition to a buried duct bank to the East

Switchyard. The objective is to mitigate known issues, improve reliability, provide serviceability of the power distribution to the Yates Complex, and to reduce risk to SURF stakeholders. Specific Items:

- a. Extend existing 12,470V 3-phase overhead line approximately 440 feet (556 ACSR, (2) 45' H1 Poles, (2) 55' H2 Poles, (1) Gang Operated Air-break Switch).
- b. Construct approximately 620 feet of new incoming duct bank (concrete encased, (4) six-inch ducts, one manhole).
- c. Install, terminate, and test (6) runs of 500 kcmil single conductor shielded aluminum cable.
- d. Coordinate cutover from old feeder cable to new cable.
- e. Option 1 – Install approximately 260 feet of new outgoing duct bank (concrete encased, (2) six-inch ducts terminating at manhole, (1) two-inch duct, one handhole, excluding cable.)
- f. Option 2 – Replace existing protection relays with new SEL-751 feeder protection relay. (One Multilin 735 relay, one GE MDP overcurrent protection relay.)

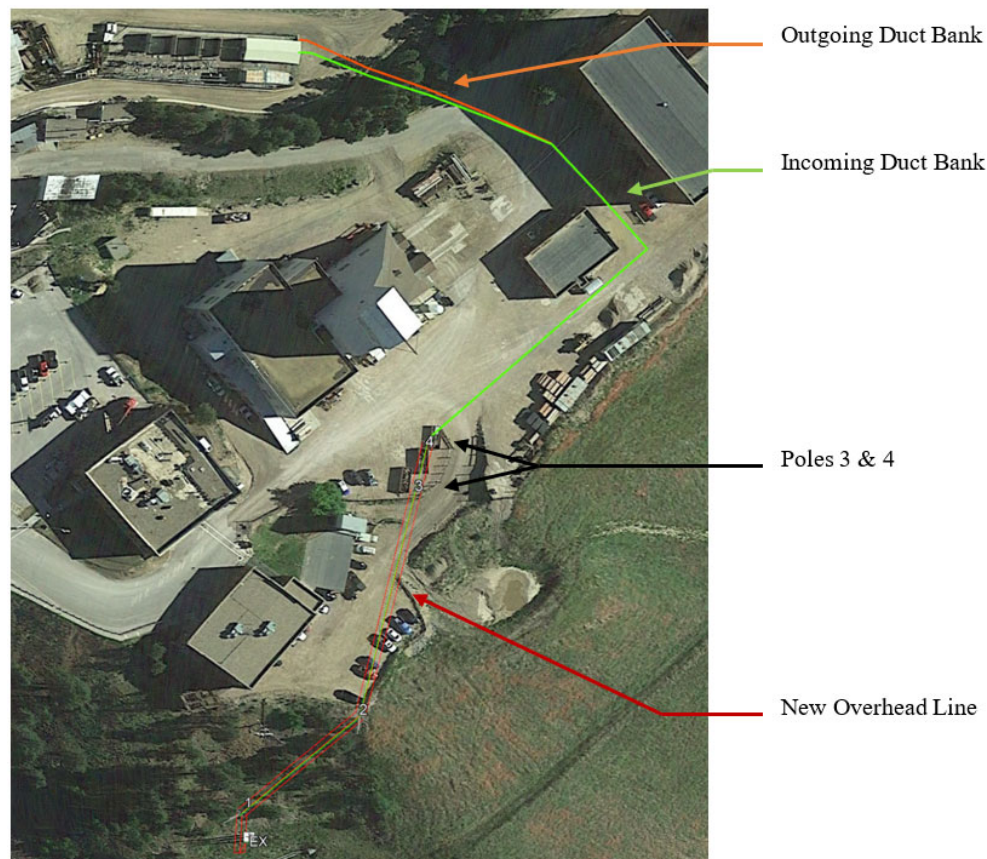


Figure 2: Routing Layout

4. TECHNICAL EVALUATION CRITERIA:

A best value selection process will be used to award this contract. The selection criteria are listed below. Selection will be made based on tradeoffs between price and non-price evaluation criteria.

- a. The offeror's total project package including proposed project team and other technical requirements defined in this document.
- b. Specialized experience and technical competence in: (1) Heavy construction. (2) Industrial electrical installation (3) Overhead electrical pole and line installation (4) Working from heights.
- c. Construction safety practices, procedures, and safety record relating to the scope of work.
- d. Qualified professional personnel in the following key disciplines: project management, project supervision, industrial electrical construction, heavy equipment operation.
- e. Proposed Project duration. The offeror shall be evaluated on the proposed project duration from the Notice to Proceed (NTP) (See Para 2; Submission Requirements: Schedule).
- f. Past performance on SDSTA, US Dept of Energy, State of South Dakota or other contracts with respect to cost control, quality of work, ESH record and compliance, and compliance with performance schedules.

2. SUBMISSION REQUIREMENTS:

Submission Requirement: General

To be eligible for contract award, a firm must be registered as a business entity with the South Dakota Secretary of State.

Proposals should be provided in digital format as a pdf file with standard letter size format. Note that there is a 50-page limit for proposals. Proposals must contain the following:

- Description of the working relationship between each of the overall team members, including a personnel specific organization chart. Note that the named subcontractors and outside associates or consultants must be used for project execution, and any change must be approved in advance by the SDSTA.
- Provide an organizational chart of proposed team.
- Primary points of contact for the proposed team.
- Description of the approach to cost and schedule control. What tools are used and how is information to be communicated to the project team and SDSTA.
- Any exceptions to the draft contract, terms and conditions, or other RFP materials.

Submission Requirement: Similar Projects

Describe at least three similar projects that the Contractor/Subcontractor has installed and commissioned within the past ten years. Example projects should be at least \$500K in value and include similar scopes of work. Examples should note the customer, location, and date of the project.

Submission Requirement: Safety

Provide a description of the safety programs of contractors and subcontractors who would be

performing work at SURF under this contract. Demonstrate the firm's understanding and awareness of all ESH issues that will be present on this project. Note that this project requires a safety officer. This position can have an added role as project superintendent or other project position that does not directly conflict with the safety duties.

- Include safety records for the past five years (incident/injury records, OSHA 300 logs, and EMR data) of contractors and subcontractors who would be performing work at SURF under this contract.

Submission Requirement: Quality Control

Provide a description of the QC programs of contractors and subcontractors who would be performing work under this contract. QC manuals will not count toward the 50-page limit.

Submission Requirement: Qualifications

Provide resumes for key personnel proposed for this project. Include project manager, project superintendent, project safety officer. Resumes should include qualification, certifications, and experience in the specific role proposed with relevant projects.

Submission Requirement: Schedule

The SDSTA seeks to complete the project by the end of the calendar year or approximately 180 calendar days based on a July Notice to Proceed (NTP.) This objective may be affected by present market volatility relating to the availability of specified project materials and equipment. As such, the offeror shall propose a total number of contract days for the execution of the project starting from the NTP. This duration should identify and account for estimated lead times for project materials and equipment.

Note that liquidated damages of (\$100/day) will be applied for additional schedule days required after the approved contract completion date. If the offeror and SDSTA mutually agree that construction must be halted due to Winter, the contract completion date will be extended without additional compensation or assessment of liquidated damages until the following Spring to complete the project.

Provide the specific number of calendar days from NTP for project completion.

Date 0 – Notice to Proceed	0	Calendar Days
Date 1 – Material Procurement Period	_____	Calendar Days
Date 2 – Mobilization Period	_____	Calendar Days
Date 3 – Project Construction Period	_____	Calendar Days
Total Project Duration (Sum Dates 1-3)	=	_____ Calendar Days from NTP

Submission Requirement: Price

Provide a project pricing breakdown as detailed below.

PRICING:

1.1 Mobilization \$ _____ FFP

1.2 Overhead Line Construction (total) \$ _____ FFP

Conductor Material \$ _____ FFP

1.3 Incoming Duct Bank Construction (total) \$ _____ FFP

Conductor Material \$ _____ FFP

Conduit Material \$ _____ FFP

1.4 Outgoing Duct Bank Construction (Option 1) (total) \$ _____ FFP

1.5 Protection Relay Replacements (Option 2) (total) \$ _____ FFP

TOTAL PROPOSAL \$ _____ FFP

The offeror's fixed price shall constitute full payment for the work, materials, services, quality control testing, other items required, and include all applicable federal, state use, sales, and local taxes, duties, permits, bonding, and all the Subcontractor's other obligations related to such work.

Submission Requirement: Mandatory Site Visit

All offerors are required to attend an onsite pre-proposal conference & site visit on 8/1/2022 from 10:00-12:00 P.M. MT located at: SURF, 630 East Summit Street, Lead, South Dakota.

Pre-registration is required by email to Benjamin Brack (bbrack@sanfordlab.org) by 5 P.M. MT on 7/29/2022 to receive instructions and directions. Only companies represented at the pre-proposal conference will be eligible to submit proposals. Contractors' subcontractors are encouraged, but not required, to attend.

3. DELIVERABLES:

Refer to SDSTA Division 1 and other technical specifications for deliverables required after contract award but before the start of work and during project execution. While not a complete list, key deliverables include:

- Safety Plan
- Quality Control Plan
- Environmental Protection Plan
- Construction Schedule
- Schedule of Prices
- Submittal Register
- Contractor Daily Reports
- Test Reports

- As Built Drawings
- O&M Manuals and Warranties
- Equipment labels per applicable codes and standards.
- Copies of training materials developed and used for owner training.

4. PROPOSALS DUE:

Offerors should submit an electronic copy (pdf format) of the proposal no later than 2:00 P.M. on 8/23/2022, to bbrack@sanfordlab.org. Late submissions will not be accepted.

Questions are due by 5 P.M. on 8/4/2022.

Questions/Answers will be posted to the sanfordlab.org website no later than 8/9/2022.

The proposal period may be extended at the discretion of SDSTA based on the quantity and/or complexity of questions. Any notices of extension of time to respond will be distributed to all prospective offerors by SDSTA.

All communications regarding this procurement between RFP release and award shall be directed by email to Benjamin Brack (bbrack@sanfordlab.org). Communications with other SDSTA staff regarding this procurement in advance of the award are not allowed.