

RFP #19-0079

REPAIR MEDIUM VOLTAGE ELECTRICAL DISTRIBUTION SYSTEM AT VARIOUS LOCATIONS

Scope of Work

Overview: Provide all equipment, labor, materials, and management for the installation of a complete and functional system in compliance with the scope, drawings, and specifications identified in this solicitation. The Subcontractor shall repair medium voltage distribution & backup generation systems. Work shall include but is not limited to, replacement of pad mount transformers, replacement of primary conductors in duct bank, replacing backup generators & transfer switches, and related incidental work. All work shall comply with applicable codes, UFC requirements, and Camp Lejeune electrical policies.

Project Location: The project consists of various site locations at the Marine Corps Base, Camp Lejeune, North Carolina.

In addition to the scope identified in the Contract Document, the following items are specifically identified and included:

GENERAL

The subcontractor is responsible loading, unloading and transporting any requirement the Government stated it will retain.

Subcontractor required to provide **all** testing mentioned in the specification.

Removal from the base and proper disposal of all demolished equipment, material, and debris, including but not limited to:

- a. Transformer and transformer oil
- b. Generators
- c. Petroleum Products, Oils and Lubricants (POL)
- d. Electrical cables
- e. Concrete
- f. Excavated material

Maximum allowable electrical outage for each location is 48-hours.

TRANSFORMER REPLACEMENT

1. Demolish existing pad mount transformer and install new pad mount transformer as indicated. Pad mount transformer(s) shall be sized in accordance with the attachment and have load break elbows, fuses, surge arresters, and ground ring. See standard electrical diagrams in specification for complete work and material details. Refurbished or rebuilt

transformer equipment is not permitted. Replace primary service conductors in duct bank that feed transformer. Replace primary from transformer connection point back to primary feeder. Provide copper EPR conductors with 133% insulation with concentric neutral. Replace 15kV overhead to underground terminals to include brackets, MOV arresters, conductors, and fused cutouts. Reuse existing underground conduit to the maximum extent possible. Reuse existing concrete pads to the maximum extent practicable. If a new pad is needed to accommodate work provide a new precast concrete box pad where site specific conditions permit. Transfer electrical meter, circuits, and related components to new transformer. Provide new meter base for all locations. Provide pole materials and related incidentals as necessary to complete work. Transformer replacement schedule for transformer size and related information. Existing conditions maps and estimated distances are provided to give best available information but conditions in the field will most likely vary from those supplied. Provide a 15% allowance for variation in distances when estimating conductor quantities.

GENERATOR REPLACEMENT

1. Remove existing backup generator and provide new diesel backup generator where indicated in the replacement list included in the Specifications. Remove existing transfer switch and provide new where indicated. New backup generator shall have main breaker, load bank breaker, weatherproof enclosure, double wall fuel tank, battery charger connection, generator heater connection, and separate female cam lock connectors for necessary load banking. Provide generator platforms where generator base tank exceeds 30" above finished grade. Generator platforms shall provide quick access to service personnel to all sides of the generator. Generator platforms shall not obstruct any vents, ports, or other generator equipment components. Automatic and manual transfer switches shall have a double throw switch and a NEMA 4X lockable enclosure mounted on an equipment stand. New generators that are provided shall be supplied one full tank of fuel for necessary testing and turnover. Subcontractor shall provide new engineered concrete foundations as required to accommodate new generator equipment. If existing concrete foundation is not suitable for the new install it shall be demolished and new one provided as needed to accommodate new install. Existing generators conductors are to remain and be re-used. Subcontractor shall make all necessary modifications to existing conductors and conduit to accommodate new generator footprint conditions; extend and connect.

Backup generators indicated to be replaced shall be removed under the following conditions:

- 1) Generators indicated to be returned to the government for re-use will be transported by the Subcontractor to shop 82 (Building 1023 on Michael Rd.). Subcontractor is responsible for the safe removal and disposal of all fuels, oils, and related substances prior to moving generator.
- 2) All other generators shall be removed from government property and owned by the Subcontractor. Subcontractor is responsible for the safe removal and disposal of all fuels, oils, and related substances prior to moving generator.

Government will not provide any trucks or lifting equipment in support of demolition.

Review all attachments for specifics and additional clarification. If any energized work is

necessary to complete project the Subcontractor shall obtain an energized work permit in accordance with NAVFAC procedures. Subcontractor shall be responsible for providing arc flash analysis, supporting documentation, briefs, and necessary personnel support to fulfill the requirement. See supporting documentation for details.

Preferred generator manufacturers include Kohler, Cummins, and Onan.

Subcontractor is responsible for disconnecting and reconnecting all generator utility connections.

Provide transfer switch and controls as described in the specifications.

Provide and install generator platform where generator base tank exceeds 30 inches above finished grade. Reference the generator platform drawings included in the specifications.

Provide new engineered concrete foundations as required to accommodate new generator equipment. Demolish and remove from site existing concrete pads if new pads are required.

Plans and Specifications

The Contractor shall strictly adhere to the Government Plans and Specifications including but not limited to submittals, execution, closeout documents, plans, and schedules.

The wage determinations in the task order applicable to this work are NC180038 Building dated 11/13/2018 and NC190090 Highway dated 01/04/2019 available at www.wdol.gov.

Specifications/ Applicable Documents

- MCB Camp Lejeune Contractor Environmental Guide March 2016
- MCIEAST-MCB CAMLEJO 5530.15A (Security Access Process)
- Pad Mounted Transformer Summary
- Generator Replacement List
- Pad-Mounted Transformer Detail
- Precast Transformer Pad Detail
- Grounding Details
- MCB CL PWD DB Electrical Policies & Criteria
- Existing Condition Electrical Distribution Maps
- Sample Work Permit Brief
- Sample Work Permit
- Sample Arc Flash Analysis Report
- Sample Transformer Product Data
- Sample Generator Platform Plan
- Division 1
 - Refer to OPS DIV 01 SPEC 010719 for general division 1 specifications.
 - Section 01 78 30.00 22 GIS DATA DELIVERABLES 11/18

Technical Specifications

DIVISION 02 - EXISTING CONDITIONS

02 41 00 DEMOLITION

DIVISION 05 - METALS

05 12 00 STRUCTURAL STEEL
05 50 13 MISCELLANEOUS METAL
05 51 00 METAL STAIRS
05 52 00 PIPE RAILS

DIVISION 26 - ELECTRICAL

26 00 00 BASIC ELECTRICAL MATERIALS AND
26 05 00.00 40 COMMON WORK RESULTS FOR
26 05 13.00 40 MEDIUM-VOLTAGE CABLES
26 08 00 APPARATUS INSPECTION AND TESTING
26 12 19.10 THREE-PHASE PAD-MOUNTED
26 12 21 SINGLE-PHASE PAD-MOUNTED
26 18 23.00 40 MEDIUM-VOLTAGE SURGE ARRESTERS
26 20 00 INTERIOR DISTRIBUTION SYSTEM
26 27 13.10 30 ELECTRIC METERS
26 28 21.00 40 AUTOMATIC TRANSFER SWITCHES
26 32 13 SINGLE OPERATION GENERATOR SETS
26 36 23.00 20 AUTOMATIC TRANSFER SWITCHES

DIVISION 31 - EARTHWORK

- 31 23 00.00 20 EXCAVATION AND FILL

DIVISION 33 - UTILITIES

33 12 33.00 30 WATER METERS
33 71 01 OVERHEAD TRANSMISSION AND
33 71 02 UNDERGROUND ELECTRICAL
33 77 36.00 40 MEDIUM-VOLTAGE UTILITY FUSES

Schedule/Key Dates

Site Walk: Available upon request

Bids Due: Monday April 29 by 5:00PM

Questions: Due NLT 23 April.

Period of Performance: TBD Based on Offers Proposed Schedule.

Proposal Schedule: The Contractor shall provide with its price, a bar chart schedule showing the duration for submittals, anticipated lead time for equipment, anticipated mobilization date, sequence of transformer and generator execution. Please show any overlap when multiple crews are anticipated to be working concurrently.

Project Schedule: Within 15 days of award, provide a resource loaded critical path method schedule.

All power outages will be completely coordinated and approved with the ECC office before beginning any work.

Health and Safety Requirements

ECC will provide the SSHO. The Subcontractor will be responsible for all PPE and provide a competent person at all times that work is being performed.

US Army Corps of Engineers EM 385-1-1 Safety and Health Requirements and UFGS 01 35 26 Governmental Safety Requirements apply to the work under this subcontract.

Submit Accident Prevention Plan with specific Activity Hazard Analyzes related to Definable Features of Work by EM 385-1-1.

The Subcontractor shall be responsible for completing the Energized Work Permit and Presentation Brief. The Specifications contains sample documents. Submit to ECC in sufficient time to permit thorough review before the Government requires documents.

Provide arch flash analysis prior to any hot work. The Specifications contains sample documents

Submittals: Provide submittals in accordance with 01 33 00 Submittal procedures. Provide the following submittals in addition to submittals explicitly required elsewhere. The contractor shall develop a submittal register using NAVFAC submittal register template. A DD4025 shall accompany every submittal. The Subcontractor shall identify on a checklist if the submittal complies (C), deviates (D) or take exception (E) to each requirement, by placing a C, D or E next to the specification requirement and include in the submittal package.

Below is a list of required submittals. This is not an all-inclusive list; additional submittals may be identified in the project specification or plans.

1. Updated Submittal Log to reflect all required submittals within 10 days of award, and thereafter with each material submittal. Submittal log included in Specification is a DRAFT. Subcontractor responsible for creating a final submittal log.
2. Work Plan within 10 days of award.
3. Price Schedule within 5 days of notice of intent to award
4. Submittals for material that will permanently installed within the first 60 days of the schedule shall be submitted within 15 days of award. The remaining material shall be submitted at least 45 days before being needed on the site.
5. 1354 Real Property Transfer documentation and updated MAXIMO Inventory list; Draft within 30 days and final prior to Final payment request.

6. Submittal packages as described in the specifications for all new equipment and materials including:
 - a. Product Data
 - b. Shop Drawings
 - c. Wiring Diagrams
 - d. Installation Drawings
 - e. Manufacturer's Test Reports/Data
 - f. Field Test Reports
 - g. Operating Instructions
 - h. O&M Manuals
 - i. As-Built drawings

Other:

7. Reporting: The Contractor shall provide a daily progress report to ECC by 0900 the following day. The report shall at a min. contain date, number of workers on site by trade, work completed, inspections performed, corrective action identified and performed, deliveries, and work planned for the following days.
8. As-Built Drawings: Provide within 15 days of the completion of the interim final inspection for each building (BoD) or project final inspection which-ever comes first.
9. Meetings: The Contractors Superintendent shall attend a daily Plan of the Day with ECC. The Contractors Management team shall attend a weekly coordination meeting with ECC. The weekly coordination meeting shall discuss work completed during the week, up-coming inspections, and 3-week look ahead.
10. Temporary Facilities: The Contractor shall provide its own temporary offices, toilets, and dumpsters.
11. Contractor may be required to use electronic project management software such as Procore. ECC will provide training and access to at least the Offers Project Manager.
12. Proof of Purchase Orders: Upon requires, the Contractor shall provide a copy of executed purchase orders for all material requiring fabrication, lead time longer than 15 business days, material equal or greater than 5% the value of the subcontract. The Contractor is free to redact financial information.
13. Staffing Requirements: ECC will provide a Quality Control Manager, and SSHO. The Offer shall provide at a minimum a Project Manager and Superintendent. However, the Offer is free to staff the program with its own SSHO and/or QC staff as it see fit.

Bid Tab

See Attachment. Bid tab shall include all Taxes Markups and Fees.