

**Statement of Work**  
**Electrical Distribution System Maintenance**  
**VA Palo Alto Health Care System**

**Section 1: General Information**

1.1 General: This is a non-personnel services contract to electrical distribution system maintenance at the VA Palo Alto Health Care System (VAPAHCS). The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the Contractor who, in turn is responsible to the Government. The contractor shall perform to the standards in this contract.

1.2 Period of Performance: Work must be completed within 180 calendar days after the Notice to Proceed.

1.3 Place of Performance:       VA Palo Alto Health Care System  
  3801 Miranda Avenue  
  Palo Alto, CA 94304

1.4 Site Visit: To schedule site visit please contact Timothy McCoy at (650) 493-5000 x61838 or [timothy.mccoy@va.gov](mailto:timothy.mccoy@va.gov).

Due to the impact on our patients there will be only one power shutdown for the bid process.

1.4 Hours of Operation: All work shall be completed after normal business hours due to the impact of this type of work, shall be coordinated with the COR assigned to this project, and only commence once approved. A minimum of **three weeks' lead time** on a request for a shutdown from the contractor shall be required.

Normal business hours are between the hours of 8:00 A.M. to 4:30 P.M. Monday thru Friday except Federal holidays or when the Government facility is closed due to local or national emergencies, administrative closings, or similar Government directed facility closings..

1.5 Type of Contract: The government will award a Firm Fixed Price contract.

1.6 Invoicing: All invoices from the contractor shall be submitted electronically in accordance with VAAR Clause 852.232-72 Electronic Submission of Payment Requests.

VA's Electronic Invoice Presentment and Payment System – The FSC uses a third-party contractor, Tungsten, to transition vendors from paper to electronic invoice submission. Please go to this website: <http://www.tungsten-network.com/US/en/veterans-affairs/> to begin submitting electronic invoices, free of charge.

More information on the VA Financial Services Center is available at <http://www.fsc.va.gov/einvoice.asp>.

## Vendor e-Invoice Set-Up Information:

Please contact Tungsten at the phone number or email address listed below to begin submitting your electronic invoices to the VA Financial Services Center for payment processing, free of charge. If you have question about the e-invoicing program or Tungsten, please contact the FSC at the phone number or email address listed below:

- Tungsten e-Invoice Setup Information: 1-877-489-6135
- Tungsten e-Invoice email: [VA.Registration@Tungsten-Network.com](mailto:VA.Registration@Tungsten-Network.com)
- FSC e-Invoice Contact Information: 1-877-353-9791
- FSC e-invoice email: [vafscscshd@va.gov](mailto:vafscscshd@va.gov)

## Section 2: Definitions & Acronyms

### 2.1 Definitions:

*Contractor.* A supplier or vendor awarded a contract to provide specific supplies or service to the government. The term used in this contract refers to the prime.

*Subcontractor.* One that enters into a contract with a prime contractor. The Government does not have privity of contract with the subcontractor.

*Work Day.* The number of hours per day the Contractor provides services in accordance with the contract.

*Work Week.* Monday through Friday, unless specified otherwise.

### 2.2 Acronyms:

COR	Contracting Officer Representative
HCSM	Health Care System Memorandums
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
NETA	InterNational Electrical Testing Association
NEC	National Electrical Code
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
VA	Veterans Affairs
VAPAHCS	Veteran Affairs Palo Alto Health Care System
VHA	Veterans Health Administration

## Section 3: Government Furnished Property, Equipment, and Services

None

## **Section 4: Contractor Furnished Items and Services**

The Contractor shall furnish all supplies, equipment, facilities and services required to perform work under this contract.

### **Part 5: Specific Tasks**

#### **5.1 General Information**

- A. The objective of this project is to clean, service, lubricate all load/ dead break connectors, J-Bar connectors and terminations within underground electrical utility vaults, load interrupters, main building transformers and test all cabling with on-line partial discharge testing & insulation-resistance test 2,500vdc @ 5,000 meg-ohms throughout the entire medical facility.
- B. Provide all testing documentation within 14 calendar days of the completion of this project.
- C. The intent of contract is for service only, due to the age of the utility system. The VA Recognizes the inherent risks involved with servicing aged materials. The contractor shall visually inspect connectors in all vaults, load interrupters and or transformers before commencement of work. Contractor shall notify COR immediately upon discovery of an imminent failure of connectors or cabling.
- D. If immediate repairs are deemed to be necessary a proposal in writing shall be submitted to the COR for approval BEFORE any repair work shall be conducted.
- E. The contractor shall provide a five year full parts and labor warranty on the newly installed cables and connectors.
- F. The contractor shall provide daily cleanup and securing of work site, including securing tools and equipment. Disposal of all waste is at the contractor's own expense.
- G. Contractor, Project Manager, Contract Safety Manager, High Voltage Company Representative "shall attend" mandatory safety meetings held @ 1:00pm the day before any shutdown due to the inherent dangers with working at these voltages and level of coordination needed. This meeting is in addition to all standard safety/ tool box meetings.

#### **5.2 Servicing Connectors**

- A. Contractor shall remove, clean and re-lubricate all load break connectors, J-bars, load interrupters and line side transformer connections as per manufacturer's recommendations/ requirements.
- B. Contractor shall replace "only with the approval of COR" any connectors that show evidence of immanent failure and are in need of immediate repair.
- C. Contractor shall inspect, and test all grounding conductors and connections within the 12kV electrical utility systems.

- D. Contractor shall clean, seal all penetrations to prevent water intrusion and repair/replace fire tape on cabling as needed within vaults and transformers.
- E. Contractor shall consider all vaults as a confined space and follow VAPAHCS and OSHA guidelines.
- F. Only one set of feeders can be placed out of service at a time.
- G. All work will be required to be performed with electrical feeders off and the work area in a safe condition; the contractor shall be required to provide and install grounding clusters while working on the de-energized electrical system, grounding clusters shall be in good condition and current on testing/calibration. Due to the direct effect to patient care work must be limited to a maximum of 12 hours at a time.

### 5.3 Additional Requirements

- A. Contractor shall follow all current codes and standards related to the installation of medium voltage distribution lines including but not limited to NEC, IEC, Health Care System Memorandums (HCSM), NETA, IEEE, OSHA Guidelines, Lock out Tag out, Rules of Station etc.
- B. Contractor shall use all current accepted codes, standards, practices and policies in use at the VAPAHCS at the time of the notice to proceed. In the event of overlapping or conflicting codes, standards etc. the Contracting Officers Representative (COR) is the Authority Having Jurisdiction (AHJ) having the final decision, work shall continue at no additional cost to the government.
- C. In the event any codes or standards are found to be contradictory; the COR will make the final determination and work will proceed at no additional cost to the Government.
- D. It is the contractor's responsibility to bring any questions to the attention of the COR immediately upon discovery.
- E. Contractor shall provide proof of current calibration certificates; these will be submitted to COR for approval before commencement of work for the following, appropriate testing equipment, confined space equipment, arch flash tools/ PPE etc.
- F. Contractor will provide digital pictures of all interior walls in manholes, transformers and load interrupters in which work has been completed upon completion of project.

### 5.4 References

Institute of Electrical and Electronics Engineers Inc. (IEEE).

- A. IEEE 141 – Recommended Practice for Electric Power Distribution and Coordination of Industrial and Commercial Power Systems.

- B. IEEE 242 – Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.
- C. IEEE 399 – Recommended Practice for Industrial and Commercial Power System Analysis.
- D. IEEE 241 – Recommended Practice for Electric Power Systems in Commercial Buildings.
- E. IEEE 1015 – Recommended Practice for Applying Low- Voltage Circuit Breakers Used in Industrial and Commercial Power Systems.
- F. IEEE – Guide for Performing Arc-Flash Hazard Calculations.

American Standards Institute (ANSI)

- A. ANSI C57.12.00 – Standard General Requirements for Liquid-Immersed Distribution, Power and Regulating Transformers.
- B. ANSI C37.13 – Standard for Low Voltage AC Power Circuit Breakers Used in Enclosures.
- C. ANSI C37.010 – Standard Application Guide for AC High Voltage Circuit Breakers Rated on a Symmetrical Basis.
- D. ANSI 37.41 – Standard Design Tests for High Voltage Fuses, Distribution Enclosed Single –Pole Air Switches, Fuse Disconnecting Switches and Accessories.

National Fire Protection Association (NFPA), Latest Editions.

- A. NFPA 70 – National Electrical Code.
- B. NFPA 70B – Recommended Practice for Electrical Equipment Maintenance.
- C. NFPA 70E – Standard for Electrical Safety in the Workplace.
- D. NFPA 99 – Health Care Facilities Code.
- E. NFPA 101 – Life Safety Code.
- F. NFPA 110 – Standard for Emergency and Standby Power Systems.

5.5 Security Requirements

- A. Badges: Contractor will obtain required ID badges for all employees used on project at start of each workday; badges obtained from VA Police Service.

- B. **Security:** The contractor and their personnel shall be subject to the same Federal laws, regulations, standards, and VA policies as VA personnel regarding information and information system security.

## 5.6 Cost Breakdown

The contractor shall thoroughly review the scope of work, and attachments prior to submitting their proposal. The quote shall be prepared to reflect all labor and materials needed to complete the service project as stated above. The contractor's quote will list the breakdown of all materials, labor and time required to complete the above mentioned project. Contractor proposal shall state coefficient in separate line item.

## 5.7 Documentation

5.7.1 **Work plan.** The Contractor shall submit a work plan outlining the company plans to complete a quality project within a given amount of time and in compliance with this firm fixed price contract.

5.7.2 **Schedule.** The Contractor shall submit project schedule IAW Section 01 32 13 16.15 Project Schedules and simplified three-week look-ahead schedule.

5.7.3 **Submittals.** The Contractor shall submit project submittals per Section 01 03 23 Shop Drawings, Product Data, and Samples for COR approval.

5.7.4 **Quality Control Plan.** The Contractor shall outline the procedures that the contractor will use to ensure that a high quality product is produced for this contract. See SOW 3.0.

5.7.5 **Safety Plan.** The Contractor shall outline the safety procedures that comply with applicable federal, state and local laws, the Occupational, Safety and Health Act (OSHA) (Public Law 91-596) and the resulting standards, OSHA Standards 29 CFR 1910 and 1926, as applicable, and the protection of their employees. Additionally, the Contractor is responsible for the safety and health of all subcontractor employees.

5.7.6 **Meeting minutes.** The Contractor shall record and track meeting minutes and submit to COR for editing and approval.

5.7.7 **Inspection records.** The Contractor shall submit weekly inspection testing and reports to COR.

## Section 6: Applicable Publications

6.1 VA Handbook 6500.6, Contract Security, Appendix C is available at

[http://www.ois.oit.va.gov/docs/Appendix\\_C.pdf](http://www.ois.oit.va.gov/docs/Appendix_C.pdf).

## Section 7: Attachments

7.1 Wage Determination 2005-2045 (10 pages)

## 7.2 Standard Specifications (287 pages)

### Standard Specifications Index Page

Section 01 00 00 General Requirements

Section 01 32 16.17 Project Schedules db

Section 01 33 23 Shop Drawings, Product Data, and Samples

Section 01 35 26 Safety Requirements

Section 01 42 19 Reference Standards

Section 01 74 19 Construction Waste Management

Section 01 91 00 General Commissioning Requirements

Section 02 21 00 Site Surveys

Section 07 84 00 Fire Stopping

Section 07 92 00 Joint Sealants

Section 13 05 41 Seismic Restraint Requirements for Non-Structural Components

Section 26 05 11 Requirements for Electrical Installations

Section 26 05 13 Medium Voltage Cable

Section 26 05 26 Grounding and Bonding for Electrical Systems

Section 26 05 33 Raceway and Boxes for Electrical Systems

Section 26 05 41 Underground Electrical Construction

Section 26 08 00 Commissioning of Electrical Systems

Section 26 13 13 Medium-Voltage Circuit Breaker Switchgear

Section 26 24 16 Panel Boards

Section 26 25 11 Busways

Section 26 27 26 Wiring Devices

Section 26 29 21 Enclosed Switches and Circuit Breakers

Section 26 43 13 Surge Protector Device