

STATEMENT OF WORK AND REQUEST FOR QUOTE (RFQ) PROCESS
RESILIENCE ANALYSIS AND DESIGN FOR THE REPAIRS OF THE LONGARE
ELECTRICAL DISTRIBUTION SYSTEMS (LEDS)

207TH MILITARY INTELLIGENCE BRIGADE

PART I - STATEMENT OF WORK

1.0 PRODUCTS AND SERVICES

The Contractor shall provide all necessary materials, software, training, labor, travel, supervision, and management to execute requirements. Reference Paragraph 6 for detailed requirements.

2.0 LOCATIONS

Installation location: United States Army Garrison (USAG) Italy, Camp Pluto/Longare, Italy

3.0 POINTS OF CONTACT

U.S. Army Corps of Engineers – Project Manager
Name:
Email:
Phone: 256-895-

U.S. Army Corps of Engineers – Project Engineer
Name:
Email:
Phone: 256-895-

207th Military Intelligence Brigade – Brigade Engineer
Name:
Email:
Phone:

4.0 HOURS OF OPERATION

Delivery of requirements shall be scheduled when facility is open between the hours of 0730 and 1700 on Monday through Friday. On-site contract services shall not be performed after hours or on weekends unless otherwise approved by the United States Army Corps of Engineers (USACE) Contracting Officer's Representative (COR).

5.0 SCHEDULE OF COMPLETION

The Contractor shall develop, maintain, and submit for Government approval, a project schedule identifying critical path events for all requirements to be performed by the Contractor in accordance with (IAW) this Statement of Work (SOW). The schedule shall include an event-driven schedule/network that includes all tasks (from project award through testing, training and close-out) and logic necessary for the management of work, task flows, task interdependencies, major milestones, key events and all deliverables required under the base contract and this SOW.

The Contractor's project schedule shall include (not an all-inclusive list): unique activity numbers, activity description, activity durations, baseline, actuals and critical path. Furthermore, the Contractor shall identify tasks (i.e. submittal reviews, testing, etc.) performed by the Government (unless otherwise stated, 21 calendar day Government review cycle) and delivery of products or information provided by the Government on the project schedule.

The work shall be completed by 1 March 2022.

6.0 REQUIREMENTS

The Contractor shall provide all necessary materials, software, training, labor, supervision, and management to execute requirements.

Perform Electrical Energy Resilience Modeling for the Longare Electrical Distribution Systems (LEDS) using existing annual 15 minute energy data considering current backup assets (5 Existing Diesel Gensets) as well as to consider economics and resilience of adding PV and Battery Energy Storage Systems (BESSs).

Field investigate existing conditions to determine condition and appropriate sizing for existing and future capacity loads associated with energy resilience alternatives being evaluated on the Longare Electrical Distribution System (LEDS). The intent is to assess current condition of the LEDS, identifying any existing deficiencies and determining what elements would be necessary to repair/replace/install to create a ringed/resilient/redundant electrical infrastructure based upon the modeling results to support an islandable Microgrid that would operate mission critical loads in a cost-effective manner.

There are 5 Electrical Substations (ESSs) from the Utility Supplier Point of Delivery (POD) for the LEDS which is currently laid out in two radial MV Feeds. Each of the ESSs contain Medium Voltage Switches, Transformer and Low Voltage Panel with multiple feeds and LV Breakers that supply the loads.

Appendix A shows the General Layout for the Longare/Site Pluto Line and

contains a single-line diagram/generator information for the LEDES.

Total LEDES Load 2019-2020: Total kWhrs 1,XXX,XXX; \$139K: Max 294kW, Min 166kW, Avg 220kW

ESS 44 (formerly Cabina 39) Sub-Zone:

Initial ESS with 3 MV Breakers; Commercial Power In, Power Out to ESS 43 (formerly 37) and Power Out to ESS 38

Diesel Generator:

LV Breakers: Separate LV Feed from ESS 43 (to be verified)

ESS 43 (formerly Cabina 37 outside of Cave) Sub-Zone:

3 MV Breakers; Power In From ESS 44 (formerly Cabina 39), Power Out to Transformer 630kVA, Power Out to ESS 42 (Cabina 42)

Diesel Generator:

LV Breakers:

Bldg 21: Storage

Bldg 23: Vehicle Maintenance and Admin

Bldg 24: (Critical Load) Water Pumping and Treatment

Bldg 25: Storage no Electrical

Bldg 26: Maintenance Shops and Admin

Bldg 27: Dog Kennels

Bldg 28: Climate Controlled Storage (project on-going)

Bldg 29: Storage

Bldg 37 (Cave): Storage Ventilated

ACP: (Critical Load) via Martinelli Gate

Perimeter and Area Lights: (Critical Load)

Dog Training Area:

ESS 42 (Cabina 42 attached to Bldg 10) Sub-Zone:

3 MV Breakers; Power In from ESS 43 (formerly Cabina 37), Power Out to Transformer 800kVA, Power Out to ESS 34 (Cabina 34)

Diesel Generator: 1 x 400V 400kVA and 1 x 220V 400kVA (in process of converting all loads to 400V)

LV Breakers:

Bldg 10 (Critical Load) Secure Operations Admin

Bldg 36 (Critical Load) Secure Operations Admin

Bldg 11: (Critical Load) Secure Operations Admin

Bldg 32: (Critical Load): Water Plant

Perimeter and Area Lighting: (Critical Load)

ESS 34 (Cabina 34) Sub-Zone:

2 MV Switches, Power In from ESS 42, Power to Transformer (In process of adding a 3rd MV Breaker for future connection to ESS 38 (Cabina 38) to complete MV Ring)

Transformer: 400V 630kVA

Diesel Generator: 400V 200kVA connected at ESS 34 through ATS

LV Breakers:

Bldg 9: (Critical Load) Secure Communication Information Facility

Bldg 9 Pads: (Critical Load) Under Construction

Bldg 8: (Critical Load) Operations

Bldg 7: (Critical Load) Operations

Perimeter and Area Lighting: (Critical Load)

ESS 38 (Cabina 38) Sub-Zone

2 MV Switches, Power In from ESS 44 (Cabina 39), Power to Transformer (design to include adding a 3rd MV Breaker for future connection to ESS 34 (Cabina 34) to complete MV Ring)

Transformer: 400V 630kVA

Diesel Generator: 400V 200kVA connected at ESS 38 through ATS

Bldg 1: (Critical Load) Joint Use Secure Operations Admin and Reserve Center (Barracks)

Bldg 2: Admin

Bldg 3: Gym

ACP: (Critical Load) Riviera Berica Gate

Perimeter and Area Lighting: (Critical Load)

Tasks:

1. Perform Energy Modeling on the basis of 2019 and 2020 15-minute Electrical Energy Usage determining LCCE Optimized Scenario and the 14-Day Resilience Scenario.
2. Evaluate Age, Condition and Size of the Electrical feed from the Utility into the LEDS to support the existing and future Modeled Solutions.
3. Evaluate Age, Condition and Size of the LEDS MV Distribution in the 5 ESSs including the condition and line size and the future desire to complete the MV Ring.
4. Evaluate Age, Condition and Size of the line and breaker that feeds all LV Loads/Bldgs. Consider the PV potential for SE-SW facing roofs for integration.
5. Perform LV Coordination Study.
6. Update the One-line diagram and LV block diagram panel.
7. Perform Thermography report for all electrical panels.
8. Provide Design, Specifications, Equipment List and Cost Estimate for the LEDS in order to support an Islandable Microgrid based upon the Energy Modeling

Analysis that looked at the total and critical electrical loads and specifications for additional Distributed Energy Resources such as PV and BESS.

7.0 INVOICING AND FINAL CLOSE OUT

Upon completion of the final acceptance of all requirements a submission for payment may be submitted. All submissions for payment shall be submitted by email to UMCSInvoices@usace.army.mil.

All submissions for payment must include an itemized invoice, and a final contract release form. If any information is incorrect, incomplete, or appropriate forms are not submitted, submissions for payment will be returned to submitter.

Contractors shall submit invoices in accordance with the instructions provided in the contract. (Please contact your Contracting Officer's Representative (USACE COR) if you have any questions.).

8.0 AT/OPSEC REQUIREMENTS

AT Level I Training. All contractor employees, including subcontractor employees, requiring access to Army installations, facilities, and controlled-access areas will complete AT Level I awareness training within 30 calendar days after the contract start-date or effective date of incorporation of this requirement into the contract, whichever is applicable. The contractor will submit certificates of completion for each affected contractor employee and subcontractor employee to the COR or to the contracting officer, if a COR is not assigned, prior to issuance of Installation Access Passes. AT Level I awareness training is available online at <https://atlevel1.dtic.mil/at>.

According to AR 530-1, new contractor employees must complete Level I OPSEC training within 30 calendar days after they report for duty. All contractor employees must complete annual OPSEC awareness training.

Access and General Protection/Security Policy and Procedures: The Contractor shall obtain entry passes for each employee from the COR. The Contractor shall inform his personnel that they may be subjected to search when entering or leaving the installation at the discretion of the Installation Commander. Upon completion of the contract work or upon employee termination the Contractor shall return all passes to the Contracting Officer or the COR. Contractor and all associated subcontractors' employees shall comply with applicable installation,

facility, and area commander installation/facility access and local security policies and procedures (provided by government representative). The contractor shall also provide all information required for background checks to meet installation access requirements to be accomplished by installation Provost Marshall Office, Director of Emergency Services, or Security Office. Contractor workforce must comply with all personal identity verification requirements as directed by DOD, HQDA, and/or local policy. In addition to the changes otherwise authorized by the changes clause of this contract, should the Force Protection Condition (FPCON) at any individual facility or installation change, the Government may require changes in contractor security matters or processes.

Physical Security: The contractor shall be responsible for safeguarding all government equipment, information and property provided for contractor use. At the close of each work period, government facilities, equipment, and materials shall be secured.

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