[redacted]

Statement of Work (SOW)

For

Uninterruptible Power Supply (UPS) Connections

66th Air Base Group Communications and Information Division

(66ABG/SC)
Buildings 1435
Hanscom AFB, MA 01731

Date: 26 June 2026
Prepared by:
66ABG/SC

- **PURPOSE**

  The purpose of this project is to connect all required data center equipment in Building 1435 (B1435) to the primary building Uninterruptible Power Supply (UPS). This effort includes the installation of dedicated power sources for all designated equipment within Rooms [redacted], located at Building 1435, [redacted] Hanscom AFB, MA 01731.

- **SCOPE/OBJECTIVE**

  - The vendor is expected to inventory the equipment in the B1435 data center, determine the equipment not connected to the primary UPS, and provide a plan to connect the equipment to the primary UPS. All equipment, except those powered by the designated pink circuits, must be connected and supported by the primary UPS.

  - The objective is to seamlessly connect the B1435 primary UPS to the existing data center infrastructure while ensuring minimal disruption to ongoing operations, and to complete the on-site installation phase of the project in approximately two (2) weeks.

The contractor shall provide subject matter expertise and support services specific to the EATON platform

- **PRE-INSTALLATION REQUIREMENTS**

  - Prior to execution of contracted work, the contractor shall:

    - Provide all proposed work to meet Hanscom Base Civil Engineering (CE) and Communications Division (SC) approval.

    - Conduct a load study, a detailed inventory and provide a one-line diagram of every piece of equipment to be placed on UPS power. The load study, inventory and one-line diagram will be provided to the CE project managers for review and approval.

      - Load study: Perform an UPS electrical load & sizing requirements study to verify UPS integration with Data Center equipment. All findings must ensure NEC compliance and include the following:

      - Load & Capacity: Perform load calculations and verify UPS capacity against current demand and future spare requirements.

      - Infrastructure Sizing: Size all UPS feeder conductors and conduits based on calculated amperage and voltage drop.

      - Overcurrent Protection: Verify ratings and coordination for: UPS Input/Output breakers, Maintenance Bypass/Interlocks, and associated Panelboard Main/Feeder breakers.

- Detailed inventory: The contractor shall conduct a comprehensive inventory to verify that all equipment, including but not limited to server racks, network equipment, and support systems, is properly connected to the UPS
- Review and approval: Submit load, feeder/conduit sizing, voltage drop, coordination, and arc flash studies for Government technical review. Obtain formal Civil Engineer (CE) approval of all calculations and studies prior to commencing equipment installation.
- Provide an Arc Flash Study and labels to all panels impacted with this project. Optional, at the discretion of 66 ABG/SC.

- The contractor shall propose and submit plans for a staging area to CE and SC for approval. The staging area will serve as a designated location for storing equipment and tools, if needed. The proposed plans must ensure compliance with safety measures and confirm that SC operations and areas are not negatively impacted. 1.

The contractor shall perform a site survey to identify issues, confirm specifications, and assess current and expected UPS loads, including determining the current load percentage used by the UPS and calculating the increased load after the data center is connected. The survey must ensure the UPS can handle the expected full load during installation and address all power, communication, National Electrical Code (NEC), Unified Facilities Criteria (UFC), Unified Facilities Guide Specifications (UFGS), and Occupational Safety and Health Administration (OSHA) standards. The contractor shall provide an 'as-is/found' design assessment as part of the survey.

- **INSTALLATION REQUIREMENTS**

B1435 UPS Connections		
B1435 UPS Connections **PoP Start TBD - PoP End TBD**		
Customer: Hanscom AFB - 66 ABG/SC		
Location for PMI: 66 ABG/SCXP, [redacted]		
Line	**Category**	**Description**
1	Power Distribution	UPS Output Sub-Panels.
2	Power Distribution	Circuit Breakers.
3	Power Distribution	100 Feet of Feeder Wire & Conduit.
4	Rack Connections	2,000 Feet of Branch Wire (Panel to Racks).
5	Rack Connections	50 Feet of Conduit (EMT / Rigid) & Fittings.
6	Rack Connections	Underfloor Electrical Whips (One whip per missed rack/device.)
7	Rack Connections	Receptacles & Backboxes.
8	Miscellaneous	Consumables & Labeling.
9	Studies & Engineering	Create Arc Flash & Load Studies
10	Studies & Engineering	As-Built Drawings
11	Labor	Estimated labor hours

- During the installation, the contractor shall:

  - The contractor shall review and validate the UPS replacement “as built” design survey report diagrams provided by SC in Appendix A.

- The contractor shall provide a proposal plan focused on minimizing downtime through a phased approach and scheduling any necessary outages or service interruptions during pre-approved, after-duty-hours, including weekends, maintenance windows. The plan should detail the specific procedures for transferring loads (e.g., temporary power, make-before-break switching) to achieve seamless integration.

- The contractor shall coordinate downtime, outages, and service interruptions with CE and SC project managers.

- The contractor shall ensure proper grounding of all servers, breaker boxes, racks and support equipment per regulations within National Electrical Code (NEC), Unified Facilities Criteria (UFC), and Unified Facilities Guide Specifications (UFGS).

  The contractor shall reconfigure non-protected power breaker panels to be supported by the Protected Power (PP) infrastructure by connecting the non-protected power breaker panels to the UPS.
- The contractor shall cordon off open flooring to prevent falls; yield to SC personnel if mission access is required.

- The contractor shall maintain clean and orderly work areas daily.

  "The contractor shall perform any electrical work requiring a power outage during pre-approved after-duty hours, which are defined as Friday evenings and weekends. This work must be coordinated with and receive mandatory approvals from CE and SC at least one month in advance, as it impacts the operational data center.
- The contractor shall ensure underfloor equipment is installed at least six inches above grade; use waterproof materials for any whips or feeds requiring floor contact.

- The contractor shall provide the necessary materials to secure all installed components under the raised floor, ensuring that all wiring is elevated and securely attached to the raised floor stilt gridwork. No conductors shall rest directly on the subfloor unless an approved exception is granted.

- The contractor shall paint all receptacles and feed boxes to match the color of their corresponding breaker boxes; revise existing color assignments as needed to maintain unique identification.

- The contractor shall not perform work on, or provide power to, any existing pink colored electrical receptacles within the facility. All existing electrical panelboards (breaker boxes) dedicated to the pink-circuit system are strictly excluded from the scope of this installation.

- If required, the contractor shall acquire and use materials appropriate for securing cables and wires off the concrete subfloor or above the drop ceiling in compliance with applicable code requirements, including those for raised flooring and drop ceiling plenums.

- The contractor shall coordinate with CE and SC prior to any soldering, welding, or spark-producing work; fire alarms will be disabled during these operations.

- The contractor shall maintain dust generation at an absolute minimum to prevent impact on server equipment.

- The contractor shall be responsible for the disposal of equipment and must transport the equipment to an on-base salvage/disposal point designated by CE. This includes, but is not limited to disconnects, dismantles, and removal of but not limited to transformers, breaker panels, and any other extra equipment not needed. The contractor will coordinate with SC for any disposal if required.

- **POST-INSTALLATION REQUIREMENTS**

  - After installation, the contractor shall:

    - Label all breaker boxes, circuits, feeds, and racks by color and source.

    - Demonstrate NEC compliance through testing, labeling, and grounding.
    - Coordinate with SC network and cybersecurity teams to ensure the UPS management interface is secure for monitoring and alerting.

    - Obtain CE and SC acceptance upon completion.

    - Provide as-built designs, drawings, and reports to the CE and SC project managers.

    - The contractor will provide validation steps, artifacts, before and after diagrams, and test plan and results, to demonstrate that the entire data center load requested in this SOW is connected and supported by the primary building UPS. The contractor testing shall be accomplished with SC government and BLITS contractor personnel oversight.

- **PROGRAM MANAGEMENT**

  - The contractor shall:

    - Conduct a daily morning sync with CE and SC to review the day's administrative, technical, and financial tasks.

    - Provide daily end of day completed work status updates by email.

    - Submit proposed drawings and final as-built documentation.

- **GOVERNMENT POINTS OF CONTACTS**

  - Base Civil Engineering (CE):

    Primary Project Manager (PM)
    [redacted]

    Alternate PM

[redacted]

- Communications Division (SC):

  Primary Project Manager (PM)
  [redacted]

  Alternate PM
  [redacted]

- **NORMAL WORKING HOURS**

  - 7:30 a.m. – 4:15 p.m., Monday through Friday.

  - Work performed during other than standard hours shall be coordinated with the Contracting Officer (CO) and SC.

- **PERIOD OF PERFORMANCE**

  - The total period of performance, from contract award to final acceptance, shall not exceed sixteen (16) weeks. This includes all planning, design submittals, review periods, and a planned on-site installation phase of approximately two (2) weeks.

  - A detailed project schedule with key milestones shall be submitted by the contractor for approval prior to the start of work within a month of award.

  - CE and SC review period for design submittals: 30 days.

- **SECURITY**

The contractor shall provide, in advance, the names of all personnel requiring access to Hanscom AFB for Facility Security review. All personnel must be U.S. citizens and comply with all Department of the Air Force Instruction (DAFI) 31-101 physical security standards. Proof of identification is required for all personnel, and drivers must present a valid driver's license and proof of insurance to drive on Hanscom AFB. All documentation will be verified before a visitor's pass is issued. Base access requests must be coordinated through the SC government representative, and all entry/exit activities shall be coordinated to minimize disruption to base occupants. Normal business hours are 7:00 AM to 4:30 PM EST, Monday through Friday, unless otherwise approved. No work shall be performed on days when the base is closed, including holidays and closures due to inclement weather

- **SPECIFIED MATERIALS**

  - No sole-source items except Energy Management Control System.

    - Manufacturer: Eaton

    - Model: 93PM-L-120

- All products/equipment must comply with the Buy American Act provisions.

- **SUBMITTALS**

  - The contractor shall provide allsubmittals electronically via DoD Safe. Contractor must request a drop link at least 3 workdays prior to due date.

- **SAFETY**

  - The contractor shall comply with all applicable safety standards and practices, including OSHA and local regulations. Specific requirements include:

    - OSHA Compliance: Adhere to Occupational Safety and Health Administration standards for construction activities, including but not limited to fall protection, electrical safety, and hazard communication.

    - Site Safety Plan: Develop and submit a site-specific safety plan to Civil Engineering (CE) prior to commencement of work.

    - Personal Protective Equipment (PPE): Ensure all personnel are equipped with appropriate PPE (hard hats, safety glasses, gloves, hearing protection, respiratory protection as required).

    - Fall Protection: Cordon off, open flooring and elevated work areas; provide guardrails, harnesses, or other fall protection systems.

    - Fire Safety: Coordinate with CE and SC prior to any soldering, welding, or spark-producing work; disable fire alarms during such operations and restore immediately after.

    - Dust and Air Quality Control: Maintain dust generation at an absolute minimum to prevent impact on server equipment and personnel health.

    - Hazardous Materials Handling: Follow EPA, OSHA, and state guidelines for testing, handling, and disposal of hazardous materials (lead paint, asbestos, mold, PCBs).

    - Emergency Procedures: Establish and communicate emergency response protocols, including evacuation routes, fire suppression, and medical response with the B1435 Facility Managers.

    - Training and Awareness: B1435 will provide safety training and daily briefings to all personnel on site.

    - Housekeeping: Maintain clean and orderly work areas daily to reduce hazards and ensure safe access.

- **MEASUREMENTS AND DESIGNS**

  - The contractor shall:

- All measurements and specifications shall be verified during the site survey after contract award and prior to design development.
- Document all verified measurements to ensure dimensional accuracy and eliminate conflicts.
- Bring any discrepancies between field conditions and design documents to the immediate attention of the Project Manager.
- Incorporate verified measurements into all design drawings, specifications, and construction documents.
- Ensure final design submissions reflect actual field conditions and are coordinated across architectural, mechanical, electrical, and plumbing disciplines.

- **SPECIFIC DESIGN REQUIREMENTS**
  - Future Growth Capacity
    - The final connected load shall not exceed 80 percent, per National Electrical Code (NEC) Article 620 critical load calculation, of the UPS's total rated capacity. This ensures the system can accommodate future expansion without immediate upgrades.
  - Cost Estimating
    - Provide a cost estimate with all design submissions. The cost estimate shall mirror the bid schedule.

- **TESTING & COMMISSIONING – UPS CONNECTIONS**
  - The contractor shall perform comprehensive testing and commissioning of all UPS connections to verify redundancy, safety, and operational readiness:
    - Testing: Submit a detailed testing plan to CE and SC for approval prior to commissioning activities. Verify that both the main power and the UPS connections support the connected equipment independently. Demonstrate seamless transfer between main power, Automatic Transfer Switch (ATS), UPS, and backup generator without power interruption to mission-critical equipment.
      - The plan will test the UPS under various load percentages (25%, 50%, 75% of the design load). The contractor must provide a load bank for testing.
      - Test the UPS management monitoring and alerting.
    - Safety Checks: Perform arc flash, grounding, and breaker coordination tests in compliance with NEC and National Fire Protection Association (NFPA) standards.
    - Documentation: Provide test results, updated one-line diagrams, and commissioning reports to CE and SC.

- Final Acceptance: Obtain written approval from CE and SC confirming that the UPS data center connections meet all design, safety, and operational requirements.

- **SUPPLEMENTAL GUIDES**

- National Electrical Code (NEC): https://www.nfpa.org/codes-and-standards/nfpa-70-standard-development/70
- Unified Facilities Criteria (UFC): https://www.wbdg.org/dod/ufc
- Unified Facilities Guide Specifications (UFGS): https://www.wbdg.org/dod/ufgs

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