

Statement of Work (SOW)

Basic Ordering Agreement (BOA) for

Overhead Electrical Distribution Services

LAW02202026A (R0)

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1. INTRODUCTION

1.1 Purpose

This Statement of Work (SOW) establishes the technical, performance, and administrative requirements for a Basic Ordering Agreement (BOA) under which the Seller shall provide overhead electrical distribution services for the ORNL's electrical distribution system operating at nominal voltages of **13.8 kV and 2400 V**.

Services shall include routine maintenance, facility expansion and construction support, and emergency response and repair services during unplanned outages and storm-related events. The Seller shall provide supplemental labor, equipment, and material support to assist ORNL Electrical Utilities (EU) in maintaining the safe and reliable operation of the electrical distribution system. All work shall be performed under ORNL direction and supervision.

1.2 Background

The overhead electrical distribution systems covered by this BOA include medium-voltage 13.8 kV feeders and legacy 2400 V circuits. These systems distribute power from EU's primary and secondary substations to research laboratories and support facilities. Portions of the 2400 V system may be subject to progressive retirement, upgrade, or voltage conversion.

Due to the critical nature of the facilities served, work under this BOA requires specialized technical expertise, rapid response capability, and strict adherence to safety and quality standards.

1.3 Seller Qualifications

The Seller shall provide personnel who are qualified and experienced in overhead electrical distribution work supporting systems operating at 13.8 kV and 2400 V.

Personnel with demonstrated experience performing similar overhead electrical distribution labor support services at Department of Energy (DOE) sites are preferred. Experience within DOE environments is considered beneficial due to familiarity with:

- Integrated Safety Management principles
- Work Planning and Control processes
- Activity Hazard Analysis (AHA) development
- Lockout/Tagout (LOTO) and Power Distribution Work Permit (PDWP) processes
- High-consequence operational environments
- Federal safety and security compliance requirements

Experience in other highly regulated federal, nuclear, research, or industrial facilities with comparable safety and operational controls may also be considered relevant.

2. SCOPE OF WORK

The Seller shall provide all labor, supervision, qualified personnel, equipment, tools, materials (except ORNL-furnished equipment as specified in individual task orders), transportation, and incidentals necessary to perform work on overhead electrical distribution systems.

Work shall be performed under individual task orders issued pursuant to this BOA.

2.1 Routine Maintenance Support

The Seller shall perform preventive and corrective maintenance activities including, but not limited to:

- Inspection and testing of poles, crossarms, insulators, hardware, guying, and conductors
- Vegetation management around overhead lines and structures
- Re-tensioning of conductors
- Guy wire and anchoring repair and replacement
- Pole straightening and structural reinforcement
- Preventive maintenance and operational testing of switches, reclosers, capacitor banks, and related equipment
- Identification and correction of deteriorated or non-compliant components

Maintenance shall be performed in accordance with industry best practices to minimize downtime and maintain system reliability. The Seller shall coordinate with ORNL Electrical Utilities to maintain detailed maintenance records and service logs for work performed as detailed in / required by individual task orders.

2.2 Facility Expansion and Construction Support

The Seller shall provide construction and technical support services necessary for system expansion, modification, and infrastructure upgrades, including:

- Installation of new overhead distribution lines
- Structure erection and pole installation
- Conductor stringing and sagging
- Grounding system installation
- Upgrades to existing infrastructure (e.g., pole replacements, conductor upsizing, switchgear replacement)
- Relocation of lines due to roadwork, site modifications, or facility expansions

- System modifications supporting load growth or voltage conversions

All construction and modification work shall meet applicable codes, standards, and engineering requirements.

2.3 Emergency Response and Repairs

The Seller shall provide 24/7 personnel availability to support ORNL during unplanned outages and storm-related events.

Services shall include:

- Rapid mobilization following notification
- Coordination with ORNL Electric Utility's safety officers, operations, engineering, supervision and facility management during restoration activities
- Assist ORNL personnel in damage assessment and restoration activities
- Provide labor and equipment support during storm recovery operations
- Support temporary stabilization measures as directed by ORNL

3. TECHNICAL REQUIREMENTS

3.1 System Voltages

Services shall be provided for overhead electrical distribution systems operating at nominal voltages of:

- **13.8 kV distribution circuits**
- **2400 V legacy circuits**

All work shall comply with applicable standards including, but not limited to:

- OSHA regulations (1910 and 1926)
- National Electrical Safety Code (NESC)
- National Electrical Code (NEC)
- NFPA 70E
- IEEE standards
- EU Standard Operation Procedures
- ORNL site-specific requirements

3.2 Equipment and Materials

- The Seller shall provide personal tools and minor equipment necessary to perform assigned work unless otherwise specified in the task order.
- Major materials and system components shall be furnished by ORNL unless otherwise specified.
- All replacement components provided by the Seller shall meet or exceed applicable OEM or engineering specifications.
- Seller-furnished equipment shall be properly maintained, inspected in accordance with applicable OSHA and ANSI standards, and suitable for the voltage class involved.
- Upon request and as authorized under individual task orders, the Seller may provide bucket trucks, digger derricks, or other overhead distribution line service equipment to supplement ORNL-owned equipment when such equipment is unavailable or out of service. Equipment rental shall be separately identified in the applicable task order and billed in accordance with negotiated rates. The Seller remains responsible for inspection, maintenance, and safe operating condition of all Seller-furnished equipment.

3.3 Safety and Environmental Compliance

The Seller shall:

- Maintain a safety program appropriate for overhead electrical distribution work and compliant with applicable OSHA requirements and provide AHA for individual task orders.
- Participate in Pre-Job Briefings
- Comply with ORNL's Power Distribution Work Permits (PDWP) and Lockout/Tagout (LOTO) procedures
- Implement proper grounding practices
- Ensure appropriate use of Personal Protective Equipment (PPE)
- Ensure employees are properly trained and certified for work at 13.8 kV and 2400 V
- Personnel training records shall be provided as attachments to applicable AHA upon request.

The Seller is responsible for complying with all applicable environmental regulations and site-specific requirements.

4. PERFORMANCE REQUIREMENTS

4.1 Work Quality and Field Documentation

All work performed under this BOA shall be performed in accordance with ORNL-provided work control documents, technical specifications, safety procedures, and standard operating procedures.

The Seller is not required to maintain a separate Quality Assurance Program. Work quality, inspection, and acceptance shall be governed by ORNL oversight and direction.

The Seller shall provide accurate field information necessary to document completed work activities, including but not limited to:

- Actual torque values applied where specified
- Actual conductor sag and tension values
- Equipment settings or adjustments performed
- Material quantities installed
- Identification of any field deviations from provided drawings or specifications

Field data shall be provided to the designated ORNL representative at completion of the work activity or as otherwise directed in the applicable task order.

ORNL Electrical Utilities retains the right to perform inspections, verify compliance with specifications, and reject work not meeting established requirements.

4.2 Response Time Requirements

- **Emergency Response:** Seller shall mobilize within twenty-four (24) hours of notification, 24 hours per day, 7 days per week, unless otherwise specified in the task order.
- **Routine Work:** Work shall begin within the timeframe established in each task order.

4.3 Performance Expectations

Performance under this BOA will be evaluated based on:

- Timely mobilization and availability of qualified personnel
- Adherence to ORNL-safety requirements and work control requirements
- Quality and completeness of assigned work
- Accuracy of required field documentation

Failure to meet the requirements of this BOA or individual task orders may result in corrective action in accordance with contract terms.

5. DELIVERABLES

Deliverables under this BOA are limited to those specified in individual task orders and may include:

- Verification of personnel qualifications and certifications
- Participation in required Pre-Job Briefings
- Activity Hazard Analyses for individual task orders
- Required safety or incident reporting
- Field installation data as described in Section 4.1

The Seller is not responsible for independent system commissioning, formal engineering reports, or standalone testing documentation unless specifically required by an individual task order.

6. ORNL-FURNISHED EQUIPMENT

The ORNL may furnish certain materials (e.g., transformers, switches, conductors, hardware) on a task-order basis. Each task order shall clearly specify:

- Items furnished by the ORNL
- Items to be supplied by the Seller
- Delivery and handling requirements

7. ORDERING PROCESS

This BOA establishes a framework agreement. Individual task orders will:

- Define specific scope, location, schedule, deliverables, and materials
- Identify special technical or safety requirements
- Specify funding and performance milestones

Each task order issued under the BOA becomes binding upon issuance in accordance with the terms of the agreement.

8. POINTS OF CONTACT

- **Technical Project Officer (TPO):** Aaron Webb / webbbl@ornl.gov / 865-241-8702
- **Electrical Utilities Manager:** Kevin Norris / norriskp@ornl.gov / 865-603-8087
- **Procurement Officer:** Angela Shillings / shillingsag@ornl.gov / 865-576-1552

9. CONCLUSION

This Basic Ordering Agreement Scope of Work establishes the technical, safety, performance, and administrative framework for overhead electrical distribution services supporting systems operating at **13.8 kV and 2400 V**. The Seller shall perform all services in a safe, compliant, efficient, and professional manner to ensure reliable and continuous electrical distribution operations.