

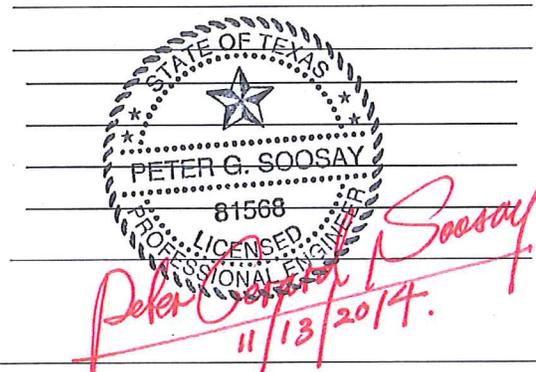
CITY OF AUSTIN ELECTRIC UTILITY DEPARTMENT

PURCHASE SPECIFICATION

FOR

AERIAL MAINTENANCE SERVICES (345 KV, 138 KV AND 69 KV)

DATE	PREPARED BY	ISSUANCE/REVISION	APPROVAL PROCESS SUPV. / MATERIALS SUPV.
7/6/2001	Peter G. Soosay	ISSUANCE	
9/5/2001	Peter G. Soosay	Revision	
12/3/2001	Peter G. Soosay	Revision	
3/30/2006	Peter G. Soosay	Revision	
7/25/2014	Peter G. Soosay	Revision	
9/18/2014	Peter G. Soosay	Revision	
11/13/2014	Peter G. Soosay	Revision	



REASON FOR REVISION	AFFECTED PARAGRAPHS
Partnership with LCRA – 9/5/2001	4.0, 5.5.2, 6.0
Contract Management – 12/3/2001	3.2.1, 4.2
Contract Management – 3/30/2006	All Sections, Specification Title change from Aerial Insulator Maintenance to Aerial Maintenance Services
Construction Additional Service – 7/25/2014	Revised entire index. Revised section 5.1.8 & 5.1.9. Added section 6.2.
Revised spec – 11/13/2014	Deleted section 5.2, 6.0

This specification, until rescinded, shall apply to each future purchase and contract for the commodity described herein. Retain for future reference.

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1. SCOPE AND CLASSIFICATION

1.1. Scope

1.1.1. The City of Austin Electric Utility Department is hereinafter referred to as Austin Energy, seeks a qualified Contractor, to provide Aerial Maintenance Services for energized and de-energized lines. Line insulators are carrying conductors rated at 345 kV, 138 kV and 69 kV.

2. APPLICABLE SPECIFICATIONS

2.1. All aerial insulator washing and maintenance services provided by the Contractor shall comply with applicable safety guidelines and regulations set forth by Industry Standards (IEEE, NESC) and Local, State and Federal Authorities (FAA, OSHA).

3. CONTRACTOR REQUIREMENTS

3.1. The qualified Contractor shall have at least five (5) years of experience, performing aerial maintenance, including washing of insulators.

3.2. Safety Guidelines

3.2.1. The Contractor shall have established safety guidelines and procedures in place and available for review by Austin Energy.

3.3. Type of Aircraft (Helicopter)

3.3.1. The Contractor shall determine and provide the type of helicopter suitable to do the aerial maintenance services. The acceptable known Helicopters include the following:

- a) Jet Ranger
- b) Turbine engine helicopter equivalent to Bell 206

3.3.2. Tail Rotor

- a) The tail rotor shall be on the opposite side of the helicopter, from the working area and the boom (§ 3.7.3).

3.4. Flight Personnel

- 3.4.1. All flight personnel shall be trained and currently certified in Contractor's bare-hand procedures.

3.5. Pilot

- 3.5.1. The Contractor shall provide pilot who is experienced in flying helicopters to do insulator maintenance in the live (energized) and de-energized wire environment.

3.6. Journeyman Lineman

- 3.6.1. The Contractor shall provide experienced Journeyman Lineman for washing insulators from a helicopter, who have been trained and certified by the Contractor.

- 3.6.2. The Journeyman Lineman shall be familiar with all clearances for performing insulator maintenance.

- 3.6.3. The Contractor shall provide experienced Journeyman Lineman, for the scope of work outlined in section 5.1.4 through 5.1.9.

- 3.6.4. JOURNEYMAN LINEMAN AND PILOTS SHALL BE PERMANENT EMPLOYEES OF THE CONTRACTOR'S COMPANY. SUBCONTRACTING OF JOURNEYMAN LINEMAN AND PILOTS BY THE CONTRACTOR, SHALL NOT BE PERMITTED.**

3.7. Equipment

- 3.7.1. The Contractor shall provide fuel truck and crew.

- 3.7.2. All equipment used for insulator washing, shall be suitable for bare-hand environment.

3.7.3. Boom

- a) Boom controllable by Boom Operator, shall be capable of placing washing boom tip within inches of insulator bells for effective washing.
- b) Boom shall not be relied upon to provide effective insulation (Basic Insulation Level, BIL).
- c) Boom shall be at least a distance equal to, two (2) times the phase-to-phase distance, the boom clearance from the phases. The boom's jet stream of water

shall be able to reach the center phase. In the case of the 345 kV line, the required boom shall be at a minimum, 25.0 ft.

3.7.4. Water Throw Distance and Pressure (345 kV Line)

- a) The effective throw distance of water shall be 12.5 ft from tip of boom.
- b) Total effective reach from the helicopter shall be 38.0 ft (minimum).
- c) Effective washing distance from tip shall have a range of 1 inch to 12.5 ft.
- d) Maximum water pressure shall be 900 psi.
- e) Minimum flow rate of 9 gallons per minute.

4. AUSTIN ENERGY REQUIREMENTS

4.1. Pre- Construction Meeting

4.1.1. Prior to the start of any work, Austin Energy will have a Pre-Construction Meeting with the Contractor, to address all issues relating to the work at hand.

4.2. Austin Energy will provide de-ionized water or water tested and approved by Austin Energy, for the washing of the insulators.

4.3. Austin Energy will provide the water tank truck, driver and pump. Water will be pumped from the water tank truck, to the water tank on board the helicopter.

4.4. Austin Energy will work with the Contractor to coordinate the energization and de-energization of lines. An Austin Energy single point of contact will be provided to the Contractor, after bid award.

4.5. The drawings are the property of Austin Energy and shall be returned upon project completion. The drawings provided by Austin Energy, are for reference purposes only.

5. OTHER REQUIREMENTS

5.1. The Contractor shall provide the following services:

5.1.1. Aerial Inspection - Aerial Photographing, (i.e. Structures, insulators, conductor, hardware, right-of-way, damage assessment)

5.1.2. Global Positioning System (GPS) points obtained at each structure location.

5.1.3. Infrared Imaging

- 5.1.4. Static Wire Removal/Installation
- 5.1.5. Armor Rod Installation
- 5.1.6. Static EHS (Extra High Strength) Splice (Perform or Compression) Removal / Installation
- 5.1.7. Spacer / Damper Removal / Installation
- 5.1.8. Live Line Maintenance / Energized Conductor
 - a) Insulator Replacement
 - b) Damper Replacement
 - c) Bundle Yoke Replacement
 - d) Conductor Repair
- 5.1.9. Line Maintenance / De-energized Conductor
 - a) Insulator Replacement
 - b) Damper Replacement
 - c) Bundle Yoke Replacement
 - d) Conductor Repair