CITY OF AUSTIN
PURCHASING OFFICE
AUSTIN ENERGY SPECIFICATION FOR
UTILITY DISTRIBUTION LINE CLEARANCE SERVICES
SOLICITATION NUMBER: SMH0123

1. SCOPE OF WORK

The City of Austin is seeking bids from qualified Contractors to perform utility line clearance work for Austin Energy, the City's municipally owned electric utility. This contract is specific to Austin Energy and its unique needs and will not be utilized by other City departments. The City plans to issue a solicitation within the next 12 months addressing tree trimming services for the rest of the City which do not involve utility lines. The Contractor(s) awarded this Utility line clearance contract will not be eligible for award for the upcoming tree trimming contract.

The purpose and intent of this Contract is to provide the City of Austin, dba Austin Energy (Owner) with ready access to contract labor, supervision and equipment to perform utility tree pruning and right of way maintenance for routine and/or emergency work. The work covered by this Contract shall include, but shall not be limited to, tree pruning and/or removal and suppression of various types of vegetation growing within Owner's electrical facilities, utility easements and rights-of-way. The Owner will determine which pricing scenario will be used for these work types. The Contractor shall be responsible for performing all types of vegetation management involved in, but not limited to, the following work types:

- **Capital Improvement Projects (CIP)** - All vegetation management involved in the installation or maintenance of distribution or transmission electrical facilities.
- **Distribution Maintenance** - Scheduled vegetation management on a distribution circuit, grid or substation basis that addresses all potential tree-related reliability concerns.
- **Distribution Reactive** - Reactive vegetation management to address an area on a distribution circuit, typically designated by a line device or line segment that is having high outages or customer complaints.
- **Transmission Reactive** - Reactive vegetation management to address areas along a transmission circuit, typically designated by transmission trouble shooters, that has the potential for causing outages, access problems or has had customer complaints.
- **Individual Customer Requests (Tickets)** - All vegetation management associated with addressing individual customer requests at one property location.
- **Trouble Work** – Any vegetation management associated with restoring safe and reliable electric service to Owner's customers. This may or may not be in conjunction with adverse weather conditions.
- **Vegetation Suppression** – Integrated vegetation management using a directed, individual application for the maintenance of the Owner's electrical system.

2. REGULATIONS RELATING TO WORK

All work shall be done in a thorough and professional manner in accordance with the Contract Documents, Specifications and acknowledged Industry Standards. Deviations from the Contract Documents, and Specifications or Industry Standards shall not be permitted without the prior written consent of Owner. These standards include but are not limited to:

- OSHA 29CFR 1910.269 Electric Power Generation, Transmission, & Distribution
- ANSI A300, "Trees, Shrubs and Other Woody Plant Management—Standard Practices (Pruning)"
- ANSI Z133.1, "Pruning, Trimming, Repairing, Maintaining and Removing Trees, and Cutting Brush - Safety Requirements"
- City of Austin Environmental Regulations and other applicable Federal, State and Local ordinances and laws

Any material, method, or procedure specified by reference to a specific standard or specification, such as a commercial standard, federal or state specification, industry or government code, trade association code or standard, or other similar standard, shall comply with the requirements in the latest revision thereof and any amendments or supplements thereto.

The code, specification, or standard referred to, except as modified in the Specifications, shall have full force and effect as though printed in the Specifications. Such specifications and standards are not furnished to bidders, since manufacturers and trades involved are required to be familiar with these requirements. The Owner shall furnish, upon request, information as to how copies of the specifications and standards referred to may be obtained.

3. KICK-OFF MEETING

After Contract award and execution, Owner will coordinate a kick-off meeting with the successful vendor(s). No work shall be performed prior to the kick-off meeting and approval of Owner. Contractor shall assume and be solely responsible for all cost and risk resulting from its failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents of which Contractor knew or reasonably should have known.

4. EXECUTION OF WORK

Contractor shall perform all work properly issued and scheduled by Owner in a timely and efficient manner meeting all required deadlines, performance measures and need dates as established by Owner. Contractor shall comply with the requirements and/or instructions of Owner in the performance of all work.

Prior to commencing any work, Contractor shall become familiar with the location and nature of any electrical facilities involved and shall at all times carefully guard against any interference with the normal operation of such facilities. Contractor shall notify, and if required, secure the consent or permission of proper public authorities or property owner before tree pruning or removing any trees or brush. All work shall be performed in accordance with all applicable Specifications and Requirements, including, but not limited to the Tree Pruning and Line Clearance Specifications and Requirements (Attachment G).

Contractor shall avoid unnecessary interference with concurrent activities of other Contractors and Owner forces at the work site. Contractor shall not interfere with the use of public and private roads, and shall provide and maintain suitable detours or other temporary expedients if necessary, at no additional cost to the City. Contractor shall conduct the work in a manner to avoid unnecessary noise and other disturbance, and shall cooperate with other occupants of the premises. Contractor shall be responsible for determining if permits are required. In the event that a right-of-way permit is required, Contractor shall notify AE Project Manager and the permit will be obtained by AE. Unless otherwise agreed upon by both parties, all other required permits shall be obtained and maintained by Contractor at no additional cost to the City.

Contractor and/or its employees shall not solicit work or prune, remove, or perform any other work on trees, or remove any brush, under this Contract at the request of any party other than Owner, including, but not limited to, any utility customer or property owner without the prior consent of Owner. Any solicitation of work or any vegetation management for entities other than the Owner shall not occur while Contractor is performing services for Owner. Unless otherwise agreed upon by Owner, any vegetation management for entities other than the Owner must occur outside of the regular working hours specified under this Contract. Any solicitation of work or any vegetation management may not occur where there may be a conflict of interest with this Contract.

Prompt response and timely execution of work, both routine and during periods of emergency or interruptions of electric service, are the most important requirements of this Contract. Contractor may be required to mobilize their forces on short notice from Owner. Contractor shall make available at all hours of the day or night, and in all kinds of weather, such supervisory personnel, work forces and equipment of any and all types specified and agreed to under this contract to perform the work as required by Owner. Failure by the Contractor to respond to the needs of the Owner as herein described shall be a Material Breach of Contract and may cause the Contractor and/or Contractor's sureties to be liable to Owner.

Austin Energy reserves the right during the Contract period to modify or alter the systems and/or processes used in the performance and administration of this Contract with a minimum of thirty days written notice to

Contractor.

a) **Work Site**: The geographical area in which the work is to be performed lies generally within the Owner's electric service territory. However, the successful bidder(s) may be required to manage all vegetation within the electrical system easements, right-of-ways, and substation facilities or generating plants either owned or operated by the Owner, at the Owner's request.

The Utility easements and rights of way may be adjacent to public streets and roads, or may be situated along the rear or side lot lines of individual property owners. Access to easements may be limited due to the construction of property owner fences and other obstructions.

The work sites will be divided geographically into a Northern and Southern Zone. The Northern Zone generally includes that portion of the Owner's electric utility service area north of Martin Luther King Boulevard, extending out to the eastern and western service area boundaries. The Southern Zone includes that portion of the Owner Service Area south of Martin Luther King Boulevard, extending out to the eastern and western service area boundaries. The Owner reserves the right to assign Contractor work outside of an assigned geographic work site in an emergency or if otherwise required in Owner's sole judgment. With the bid submittal, each bidder shall indicate preference for the Northern or Southern zone. At the discretion of the Owner, the successful bidder with the lowest price will be awarded their choice of zones.

b) **Work Assignments**: On an as-needed basis, Owner shall designate to Contractor the specific Distribution Maintenance work projects to be performed, including, but not limited to, identifying the particular lines, easement, or rights of way to be cleared, production benchmarks, and the order of, and schedule for, performance of the work. This work will be designated as needed for the Contractor in the Weekly Planning Meetings. AE shall determine which projects are to be performed on an Hourly Rate Basis or on a Unit Benchmark Price Basis. Electrical system reactive work, Individual Customer requests, and Capital Improvements Projects work will be assigned as needed to meet construction need dates and maintain electric service reliability.

c) Unit Benchmark Pricing:

The Owner has established the two basic work types for all Distribution work. For both of these types of work, full cycle clearance is defined as the clearance away from the line necessary to maintain a four to five year cycle. Line clearance distances attained during tree pruning operations shall vary depending on the power line voltage and the type of trees encountered. Higher voltage power lines require greater clearances. Fast growing tress shall be pruned to provide more clearance from electrical facilities than slow growing trees. The tree pruning operation shall provide clearance as appropriate for the line voltage and average growth rate of the affected trees, with the overall objective of achieving a minimum four (4) to five (5) year pruning cycle. In all instances where the trees have been previously pruned for line clearance the original clearance distance should be maintained if possible. More clearance may be necessary to achieve a four to five year cycle.

Routine Line Clearance (RLC): Furnish labor and equipment necessary to perform electric utility line clearance work as assigned at a cost per linear foot benchmark rate. The Owner will provide the footage amount for each project based on the overhead primary footage. Stand alone triplex and service drops will not have any footage added to the total project footage. Stand alone open wire secondary will be eligible to have footage added by the Owner for each individual project. This Unit price includes all costs associated with Routine Line Clearance, including, but not limited to: labor, equipment, supervision, line clearance work, administration and notification. This unit price will be used for work associated with Distribution Maintenance.

- All properties are reviewed by a contractor work planner for line clearance, including service drops, guy wires, and pole clearance.

- Includes all tree pruning and brush/tree removal up to 8 inches in diameter.
- All vines will be cut and treated and when possible, removed from the pole.
- Service Drops will be cleared of any limbs applying direct pressure or rubbing on the facilities.
- Guy wires will be cleared of any limbs applying direct pressure or trees growing between the guy wires.
- Poles will be cleared of all vegetation only if there is device on the pole (transformer, switch, fuses, etc.).
- Full cycle clearance will be obtained on all trees pruned.
- Basal herbicide treatment will be encouraged on brush, with property owners permission, (brush less than fence high in town and less than 10 feet in rural areas).

Line Clearance Light (LCL): Furnish labor and equipment necessary to perform electric utility line clearance as assigned at a cost per linear foot for Light Benchmark Work. The Owner will provide the footage amount for each project based on the overhead primary footage. Stand alone triplex and service drops will not have any footage added to the total project footage. Stand alone open wire secondary will be eligible to have footage added by the Owner for each individual project. This Unit Price includes all supervision, line clearance work, administration and notification.

- All properties are reviewed by Contractor's Pre-Planner for line clearance, including service drops, guy wires and pole clearance.
- Includes all tree pruning and brush removal up to 8 inches in diameter
- All vines will be cut and treated and, when possible, removed from the pole.
- Brush and small trees that have four years of clearance will not be targeted for removal, unless other line clearance work is scheduled on the property.
- Service drops will be cleared of any limbs applying direct pressure or rubbing on the line.
- Guy wires will be cleared of any limbs applying direct pressure or trees growing between the guy wires.
- Poles will be cleared of all brush only if there is device on the pole (transformer, switch, fuses, etc.).
- Full cycle clearance will be obtained on all trees pruned.
- Tree(s) do not need to be pruned if cycle clearance is present at time that Contractor's Pre-Planner is on property (cycle clearance varies by species).

Determination of Benchmark Classification: The classification of the pricing strategy for each project will be assigned by Austin Energy. Austin Energy may use some of the following factors alone or together to assist in determining the pricing strategy to be used on any project. However, there are other factors that may affect the pricing classification, including budgetary constraints, environmental concerns and productivity goals.

- Tree Volume—Generally, a project may be classified as routine line clearance maintenance if 60% or more of the trees on a circuit that are within close proximity or touching the electrical facilities. This means if less than 40% of the trees need to be pruned; the circuit may be classified as a "light" circuit.
- Tree Removals—If a circuit has a large amount of potential tree removals, this may cause the circuit to be classified as routine line clearance maintenance. Less potential removals may cause the circuit to be classified as a "light" circuit.
- Line Construction—The amount of open wire secondary and ratio of main line to feeders will also play a part in any determination of circuit classification.

An example of the use of these factors would be as follows:
A circuit has approximately 50% of the trees within 6 inches of the electrical facilities. However, there is a large amount of brush and 8-12 inch Hackberry trees growing under the electric lines. The secondary lines on this circuit are also almost 90% open wire secondary. Assuming there are no budgetary constraints or environmental concerns, Austin Energy would assign this circuit to the

contractor as a routine line clearance maintenance circuit.

Removals: Removals are an integral part of a successful vegetation management program. However, because removals are obtained on an inconsistent basis and can increase or decrease the final cost of a project, removals will be a unit price that will be added to the total cost of the project. The removal units will be dependent on the diameter of the tree to be removed and the benchmark unit assigned to the device where the removal is located on the project.

- Removals are defined by diameter at breast height. All removals must meet all specifications as designated by the Line Clearance specifications. All removals will be removed as close to the ground as possible to prevent re-sprouting.
- Brush is any tree removal less than 8.0 inches in diameter. Brush is considered part of the Benchmark Unit Price (RLC or LCL) unless otherwise designated by AE.

The efficacy of the Benchmarking pricing strategy will be evaluated by the Owner biannually. The Owner reserves the right to dictate which projects will be worked under the Benchmarking pricing versus a Time and Material basis. At any time, during this Contract period, the Owner reserves the right to bid out individual project or groups of projects.

d) Weekly Planning Meeting Requirements: Unless otherwise approved by Owner, Contractor's personnel shall be required to meet with Owner on a weekly basis to receive assignments, discuss status and any other issues as determined by AE Project Manager. Unless otherwise agreed upon in advance by Owner, Contractor's Field Representative Supervisor/Manager and Pre-Planner Supervisor/Manager shall attend each meeting at a time and location as determined by Owner. If for any reason beyond the Contractor's control, the Contractor is unable, in whole or in part, to comply with any work assignments, including the schedule and order or performance, the Contractor shall promptly notify the Owner in writing, identifying the work assignments and the reasons why the Contractor will be unable to perform the work assignments as ordered. The Owner shall meet with the Contractor's representatives to adjust the work schedule as mutually agreed. The Operations Manager will notify the Contract Manager of Contractor deficiencies.

e) Upon completion of the work activity at each location, the Contractor shall promptly remove all equipment and shall dispose of all brush and debris in conformance with all applicable ordinances, laws, rules and regulations and to the satisfaction of the Owner and of the respective property owners. The Contractor shall repair any damage to the property owner's premises caused by the Contractor at Contractor's sole cost. If the Contractor causes damages to the property owner's premises in violation with any federal, state or local ordinances or regulations, the Contractor will be solely responsible for making the necessary mitigation or restitution.

f) The Contractor shall make every effort to work with the individual property owners to leave chips and logs at the work site. No brush or debris will be left at the work location unless requested and/or permitted by the property owner. Brush and/or debris shall not be left overnight without property owner's permission and/or approval of the Owner. The Contractor shall, at the request of the Owner, provide brush and debris pickup and disposal for any work resulting from line clearing performed by the Owner's forces. This brush disposal shall be performed in accordance with the Tree Pruning and Line Clearance Specifications and Requirements. The Contractor will be responsible for the proper disposal of all woody debris not left on site generated through the above work activities.

5. CHANGES TO THE WORK

The budget for this work is uncertain and subject to change. The Contractor(s) shall have the ability to adjust the work force if necessary to accommodate variations in budget authorization within thirty (30) calendar days of written request from the Owner. If the Contractor cannot adjust to the variation in budget, Contractor must provide written justification to the Owner within ten (10) calendar days of the initial request. If the adjustment (in labor and/or equipment) cannot be met by the Contractor, the Owner reserves the right

to procure services from another supplier at the Owner's discretion. Nothing herein excuses the Contractor from it's obligations under this contract.

6. OVERTIME AND EMERGENCY CALL BACK

Normal crew work hours shall be between the hours of 6:30 AM and 6:30 PM Monday through Friday, unless otherwise specified by the Owner. However, the Contractor shall have available at all hours of the day or night and in all types of weather sufficient skilled personnel and equipment to perform all work activities covered under this contract. Timely response and execution of the work in the event of an emergency is an essential part of this Contract. If Contractor should fail to immediately supply sufficient skilled personnel and proper equipment and should fail to continuously and diligently pursue the assigned work, the Contractor shall be liable to Owner for all cost, loss or expense incurred by Owner as a result of such failure including all loss of revenue to Owner from electric usage during the period of outage caused by such failure to respond. The conditions of this subsection shall not relieve the Contractor of its obligation to provide Owner with an adequate work force to meet the tree pruning needs of the Owner.

a) Overtime Work is defined as hours worked by the Contractor's personnel after first obtaining forty (40) regular hours at the specific request of the Owner. Any rest periods are at the Contractor's expense and not billable to the Owner.

b) Emergency Call-Back is defined as work ordered by Owner on an emergency basis in response to an electric system disturbance requiring the Contractor to call out personnel at any time other than normal working hours.

c) Payment for overtime work and for emergency call back work shall be as follows:

   1) Labor classifications - amount listed in *Bid Sheet* (*Section 0600, bid item 1.2.1)* (**not to exceed 35% over regular pay rates).**

   2) Equipment - No increase over the normal billing rates.

7. STORM DAMAGE RESTORATION EVENTS

The Contractor shall provide additional personnel and equipment to respond to storm damage to the Owner's electrical system when the needs of the Owner exceeds the capabilities of the Contractor's work force currently assigned to the Owner, when requested in writing by the Contract Manager. When requested by Owner to import a work force on a limited purpose basis, Contractor shall be compensated as follows:

a) Compensation to the Contractor for such additional emergency personnel and equipment shall be at the contractual rate of their home base operation. Contractor shall provide sufficient documentation to support billing rates.

b) Labor overtime rate shall be calculated by the hourly rate overtime premium as indicated on the *Bid Sheet (Section 0600, bid item 1.2.1)* Owner further agrees to compensate Contractor for employee's overtime obligation, when the employee works both at their home base assignment and for the Owner.

c) Charges to Owner for equipment shall be computed strictly on hours actually used in the pursuance of the work. Overtime rates for equipment shall be at the regular hourly billing rates.

d) Contractor's crews will be billed on a portal to portal basis, and after acquiring forty regular hours shall be compensated at the appropriate overtime billing rate. Compensation for travel shall be based on the actual time required to drive from the Contractor's remote facilities to the Owner's

designated work location and back to Contractor's remote facilities, for each employee imported for the work.

e) Additional equipment (lifts and split dump trucks) requested by the Owner to be imported by the Contractor shall be compensated on a mileage basis. The mileage charge shall be full compensation for equipment travel expenses based on the actual miles driven from the Contractor's remote facilities to the Owner's designated work location and back to Contractor's remote facility. The Owner's mileage rate will be used as the actual charge rate for any compensation.

f) In cases when arrangements must be made for meals and lodging for Contractor's imported work force the following shall apply:

1) When required, Contractor shall obtain overnight lodging at the double-occupancy rates for each additional employee brought in from out of town. Owner shall reimburse Contractor for actual cost incurred or Owner at its discretion shall provide lodging for Contractor's imported work force. Any charges incurred other than basic room rental and bed tax shall be the responsibility of the Contractor and shall not be reimbursed by the Owner.

2) When required, the Contractor shall provide meals. Owner shall reimburse Contractor for the reasonable and appropriate actual cost of meals for the additional employees brought in from out of town. Contractor shall furnish Owner with copies of receipts or suitable documentation to verify all expenditures. Owner will not provide reimbursement for alcoholic beverages, sundries or non-food items.
3) The Contractor, at the Contractor's expense, or as approved in writing, shall provide any additional transportation vehicles and the transporting of additional equipment to the Owner's service area by the Owner.

g) All other reasonable and appropriate expenses incurred by the Contractor when requested by the Owner to import a work force for this limited purpose shall be negotiated in good faith by the Owner and Contractor in advance.

8. MATERIALS AND EQUIPMENT

Contractor shall furnish, at Contractor's cost, all necessary supervision, labor, equipment, tools, apparatus, and conveyances to maintain all required line clearances within the distribution and transmission system easements, rights-of-way, and substation facilities or generating plants either owned or operated by the Owner.

Unless otherwise provided herein or agreed in advance by Owner in writing, Contractor shall provide and pay for all materials, equipment, labor, transportation, machinery, tools, fuel, telephone, power, water, utilities, sanitary facilities and all other things necessary to perform the work in accordance with the Contract Documents.

a) Contractor's Office and Equipment Yard - Throughout the duration of this Contract, the Contractor shall maintain a local, staffed business office complete with adequate telephone service and radio communications. A computer system, with a minimum of Windows XP and Microsoft Office 2003 Professional and acceptable modem and Internet connections will be required at the Contractor's main local business office. This system must be able to access and download tax plats from various Tax Appraisal Districts and perform other work as specified by Owner. A LaserJet printer will be necessary to print Vegetation Work Plans and other Owner information on a daily basis. Systems must be upgradeable and Contractor shall upgrade software and hardware as called upon to interact with Owner's systems. A copier must also be provided to ensure all paperwork is handled in a timely manner. The local business office shall remain open and staffed during the regular business hours on regular business days. Specific Owner holiday schedule shall be made available to the Contractor on a

yearly basis. The office shall be staffed and equipped for the purpose of administering the Contract, answering customer questions regarding the vegetation management being performed by the Contractor, receiving work assignments and answering any questions arising from the Contract administration, billing and/or work activity.

The Contractor shall provide at least one (1) equipment yard located within the Owner's service area from which the equipment and personnel required for the performance of the work shall be dispatched. Proper storage facilities for oil, vegetation suppression, etc. that meet City, State, and Federal regulations and codes shall be responsibility of the Contractor. The business office and equipment yard(s) shall have Owner-approved water, wastewater and electric facilities. The daily crew requirements for ice and drinking water shall be provided at the equipment yard(s).

Each crew is required to begin each workday with an empty chip bed. The Contractor, either before or after working hours, will dump the final daily load of chips, unless approved in writing by Owner. The temporary storage of all chips, brush and debris shall be located at the equipment yard(s) or an area approved in advance by the Owner. The appearance of the yard(s) shall be kept in good order. Yard location(s) shall be approved by Owner. Travel time from the equipment yard(s) to any job location within the Owner's service area shall not exceed a maximum of 45 minutes, unless agreed to in writing in advance by the Owner. Satellite yards may be required by the Owner if the travel time exceeds 45 minutes.

b) Communications - Contractor shall furnish, install and maintain dependable two-way Nextel radios (upon agreement by both parties, a Buyer approved equivalent product may be utilized in lieu of the two-way Nextel radios.) for Contractor notification, supervisory personnel and vegetation management crews as required by the Owner at the Contractor's expense. The equipment provided must allow the Owner's personnel and Contractor supervision to communicate with all Contractor crews either directly or indirectly through their General Foreman while they are either in or out of their vehicles. At a minimum Nextel radio communication will be provided for all employee classifications of General Foremen and above, including Pre-Planners, with spares for issue to all crews that may be working at a location remote from the General Foreman. All classifications of General Foreman and above, including Pre-Planners, are to have cell phone capability. The radios will need to be evaluated yearly and the Contractor will be required to make changes as necessary to maintain communications and ensure adequate coverage in outage restoration situation.

c) Barricades - Contractor shall provide at the Contractor's expense all barricades, traffic and safety devices and signage necessary to protect the work, the workers and general public in the performance of the work. The Contractor shall be ultimately responsible for working with the appropriate City, County, State, or Federal authorities to schedule any necessary lane closures. Any closures greater than single lane, at the discretion of the Owner, may be reimbursable by the Owner and not part of the benchmarking scenario. The Contractor should have sufficient signage material available for two-(2) separate single lane closures per geographic zone (i.e. North and South).

d) Computerized Line Clearance Process – The Contractor shall meet with the City within two weeks of request from AE to develop electronic work plan system and reporting processes and formats. To the extent possible, these electronic processes and formats will be mutually agreed upon. However, the City's requirements must be met as a minimum.

Each Contractor will be responsible for providing a computer system capable of downloading project information from the Owner, which will include but not be limited to: Customer name, addresses, phone number, work plan identifier number, previous work done on property, project number and segment or device. The Contractor must be able to deliver this information to portable computer systems to be used in the field by the Pre-Planners and Supervision. This system will be used to enter in all work to be performed on each property, including but not limited to the size and species of tree, the clearance required on the different types of lines, herbicide application, the size and species of any removals.

The system must also be able to capture and save the property Owner's signature, the Pre-planners signature, any changes in the original work plan, the name of the foreman who performed the work and the date the work was assessed, signed off, and completed. The system must be capable of printing a hard copy of this information for the crews, the Owner, and property owners. The system must also be able to upload each individual work plan into the Owner's system for review and archiving. All work plans, complete with signatures, for each project must be sorted, copied to a CD(s) and delivered to the Owner at the completion of each individual project.

e) Equipment and Labor Availability - Contractor shall provide all labor, supervision, tools, equipment and machinery necessary for the execution and completion of the work where it is not otherwise specifically provided that Owner shall furnish the same. As between Owner and Contractor, Contractor shall be solely responsible for the care, preservation, conservation or protection of any materials, tools or machinery owned, leased or employed by the Contractor, and shall hold Owner harmless from any claims for damage to, or loss of such materials, tools or machinery.

f) All equipment required by this Contract and used by Contractor for performance of work shall be free of any defects, and shall be in good repair and maintained in a safe and operable condition. The Owner shall have the right to direct the Contractor to remove or replace equipment or machinery that is not functioning properly. Contractor shall have readily available back-up equipment to maintain the existing crew functions.

g) Contractor shall perform all refueling of trucks and equipment and any required maintenance, either before or after the scheduled workday, unless otherwise directed by Owner.

h) The following minimum equipment shall be required for the Line Clearance portion of the Contract, additional required equipment listed in Section 0600 (bid sheet) must be available on an as-needed basis ; the availability of this equipment must be maintained throughout the duration of the contract.

Two Contractor Scenario	**One Contractor Scenario**
• Five (5) General Foreman Vehicles	• Ten (10) General Foreman Vehicles
• Eight (8) 1-½ Ton Manual Crew/Brush Hauling Trucks with Chip Dump Bed, 14 Cubic Yard Capacity	• Sixteen (16) 1-½ Ton Manual Crew/Brush Hauling Trucks with Chip Dump Bed, 14 Cubic Yard Capacity
• Two (2) 50-foot Minimum Working Height Aerial Tower Truck with Chip Dump Bed and Hydraulic Saw and Pruner w/attachments	• Four (4) 50-foot Minimum Working Height Aerial Tower Truck with Chip Dump Bed and Hydraulic Saw and Pruner w/attachments
• Four (4) 70-HP (minimum) Drum Brush Chipper, 10 inch log capacity •	• Eight (8) 70-HP (minimum) Drum Brush Chipper, 10 inch log capacity •
• Four (4) 185-HP (minimum) whole tree chippers, 18 inch log capacity	• Eight (8) 185-HP (minimum) whole tree chippers, 18 inch log capacity

i) Basic equipment for all working tree crews shall be composed of the following unless otherwise agreed to by the Owner:

- One (1) 1-½ Ton Minimum Manual Crew/Brush Hauling Truck with Chip Dump Bed, 14 Cubic Yards Capacity, or one (1) 50-foot Minimum Working Height Aerial Tower Truck, with 14 Cubic Yard Chip Dump Bed and Hydraulic Saw and Pruner w/attachments
- One (1) brush chipper
- Necessary safety equipment as required by law and Owner regulations
- Work area protection cones and traffic signs or signals as required by State and Local laws and ordinances
- Rechargeable lighting equipment equivalent to two (2) Streamlight Litebox rechargeable lamps or

greater for illumination

- Any tools necessary to make minor repairs and adjustments to equipment at the work site
- Any tools necessary to clean up the work site (i.e. rake, broom, shovel, leaf blower)
- All Pre-Planners, Field Representatives and General Foremen will be required to have a portable computer that may be used in the field that is compatible with the Owner's computer system for use in the Line Clearance processes, like Contractor Invoicing and Notification/Line Clearance
- All General Foremen and Foremen will be required to have the appropriate vegetation suppression application equipment. This equipment includes, but is not limited to, a pump-up herbicide sprayer (1 qt to 1 gal sized) and spill prevention equipment
- Individual equipment for each Crew Foreman and Climber on the crew shall include, but not be limited to; ropes, saddle, 14-inch (or larger) chain saw, hand speed-saw, throw-ball, standard pole pruner and pole saw with extensions, applicable personal safety equipment, tree wound dressing and applicator, and tool disinfectant and applicator and Nextel radio communication as requested by the Owner
- All General Foremen, Pre-Planners and Field Representatives are required to have Nextel telephones with radio capabilities (refer to *Section 0500, Article 11 b – Communication)*
- Unless otherwise stated, items and services required in this contract, but not included in Section 0600 (bid sheet) are considered non-billable items and/or services and are to be provided by the Contractor at no cost to Owner.

9. CONTRACTOR'S WORK FORCE

a) The Contractor shall have the ability to determine labor and equipment make-up to increase productivity and job efficiency, with Owner's approval. Additionally, the Contractor shall be capable of increasing or decreasing the number of crews and/or crew size upon notification by Owner. The Contractor must be able to meet the required production level and provide the necessary crews to meet work scheduling and storm restoration requirements. Any variation in the number of crews on the system must be approved by the Owner.

b) Contractor crews working on the Owner's system cannot be assigned additional work on other contracts without prior written approval by the Owner.

c) Courtesy to the Owner's customers is required at all times. Every effort shall be made to protect all property that may be affected by the work. Worker breaks for water, rest, etc., shall be taken individually with the exception of lunch.

d) All trash generated (i.e. lunch bags or drinking cups) through the daily work activity shall be picked up and properly disposed of at the end of each day. No trash is permitted to be mixed with the logs or wood debris. Crews are not to stop at stores for food, drink or personal items during the workday, unless otherwise approved by Owner.

e) All Contractor employees are expected to present a clean and well groomed general appearance and to dress in a manner appropriate with impending environmental conditions (i.e. rain gear or winter clothing) allowing for the work to be performed in a safe and efficient manner. Each crewmember shall wear a standard company-identifying article of clothing that will readily identify personnel as employees of the Contractor. Field Representative, General Foreman and Pre-Planners shall wear a standard company-identifying article of clothing with an "International Society of Arboriculture (ISA) Certified Arborist" patch or identification. Hard hats are to be worn by all personnel within the work area. The Foreman of each crew shall have a white color hard hat with the word "Foreman" on the front to identify the Foreman to the public and the Owner. No other crewmember shall have a white hardhat.

f) The Contractor agrees to furnish qualified line clearance personnel as required by the Owner and other State and regulatory agencies. If the governmental requirements are different from the Owner's, the

Contractor shall follow the more stringent guidelines. Contractor personnel shall, at a minimum, meet Contractors or Owners requirements for CPR, TXDOT and TDA requirements. Owner may also require Contractor personnel to acquire additional training and certifications, such as Railroad safety training, as necessary to perform assigned line clearance work, at no additional cost to the Owner. All of the minimum personnel qualifications are cumulative.

g) Owner reserves the right to stop work and require replacement of Contractor personnel assigned to the project at anytime at no additional cost to AE.

h) The following minimum staffing requirements for the initial start-up of the Line Clearance portion of the Contract are required:

Two Contractor Scenario (within 45 days after Notice of Award)	**One Contractor Scenario** (within 90 days after Notice of Award)
• One (1) Field Representative	• Two (2) Field Representatives
• Two (2) Pre-Planners	• Four (4) Pre-Planners
• Two (2) General Foremen	• Four (4) General Foremen
• Ten (10) Working Foremen	• Twenty (20) Working Foremen
• Eighteen (18) Tree Trimmers A, B and/or C	• Thirty six (36) Tree Trimmers A, B and/or C

i) The following minimum requirements are necessary for the following positions. Any deviations in requirements for Contractor personnel must be submitted in writing to the Owner and approved by the Owner before any changes may occur:

1) Tree Trimmer C
   - 0-12 months experience, Contractor written certification verifying all requirements are met and Owner's written acceptance
   - Basic knowledge of equipment used on the job site
   - Knowledge of the basics of electricity.
   - Capable of operating chippers and chain saws safely.
   - Ability to climb and prune small trees.
   - Ability to learn proper pruning procedures and practices.
   - Basic knots necessary for ground work.
   - Physical fitness capabilities to endure the demands of strenuous activities.
   - Drug free and able to pass the Contractor's drug screening test.

2) Tree Trimmer Class B, Contractor written certification verifying all requirements are met and Owner's written acceptance
   - Qualified line clearance trimmer.
   - 12 months of experience as a tree trimmer and/or Owner and Contractor written approval
   - Meets all conditions and abilities required in subordinate positions.
   - Thorough knowledge of proper pruning techniques (natural and directional pruning).
   - Ability to safely ascend trees by use of the 3-point contact method and the appropriate use of climbing spikes as appropriate.
   - Thorough knowledge of climbing skills, familiar with all uses of the ropes and knows how to tie the necessary knots for use in climbing and roping.
   - Able to perform the basic pruning and removal functions.
   - Safely and efficiently operates the equipment essential for this position, including a chain saw and the chipper.

3) Tree Trimmer Class A, Contractor written certification verifying all requirements are met and Owner's written acceptance

- 18 months of experience as a tree trimmer and/or Owner and Contractor written approval
- Meets all conditions and abilities required in subordinate positions.
- Able to identify the majority of the predominant tree species in the geographic area and knows the basic characteristics of these trees
- Assists in job training of less experienced climbers.
- Ability to effectively work portions of the tree that are overhanging the conductors.
- Good working knowledge of the chipper, split dump, and chain saws and other equipment essential to this position

4) Working Foreman B (Sub-Foreman), Contractor written certification verifying all requirements are met and Owner's written acceptance
   - 18 months of experience as a tree trimmer and/or Owner and Contractor written approval.
   - Meets all conditions and abilities required in subordinate positions.
   - Speaks English and able to read and write in English and able to communicate with customers and Owner personnel concerning work
   - Able to read a map and route crew(s) to work site in most efficient manner
   - Familiar with all Contractor and Owner reporting procedures and able to take over a crew in an emergency.

5) Working Foreman A
   - Meets all conditions and abilities required in subordinate positions.
   - 12 months of experience as a Foreman B, Contractor written certification verifying all requirements are met and Owner's written acceptance
   - Assists in job training for less experienced climbers and bucket operators.

6) Pre-Planner - Supervisory/Management Classification
   - Position requires employee to work at least two (2) Saturdays per month in 40-hour weeks.
   - Meets all conditions and abilities required in subordinate positions.
   - 12 months experience in line clearance work, Contractor written certification verifying all requirements are met and Owner's written acceptance
   - Effective written and oral communication skills.
   - Understands the Contract with Owner and is able to adhere to it.
   - Basic knowledge and understanding of electrical facilities operation within the Power Delivery system.
   - Basic knowledge and identification of flora and fauna indigenous to the area.
   - Skill in establishing and maintaining good working relationships with Owner's personnel, own company personnel and the public.
   - Registered as an ISA Certified Arborist within one (1) year of employment date
   - Texas Department of Agriculture licensed category 5 pesticide applicator with a right-of-way subclass within six (6) months of employment date, unless otherwise approved by Owner in writing
   - Good knowledge of and ability to interpret engineering drawings and maps and utilize the information to increase personal and crew efficiency
   - Strong negotiating skills.
   - Good conflict resolution skills.
   - Skills in planning and completing projects within the required time frame.

7) General Foreman Supervisory/Management Classification
   - Meets all conditions and abilities required in subordinate positions.
   - 12 months experience as a Foreman A, Contractor written certification verifying all requirements are met and Owner's written acceptance Primary duty to oversee, assist and train personnel when needed in all line clearance and vegetation suppression work and act as the

Single Point of Contact for Owner representatives for any crews under their supervision

- Broad knowledge of all climbing skills and vegetation suppression skills, as well as all other technical aspects (both mechanical and manual) of electrical line clearance operations.
- Working knowledge of all equipment associated with line clearance and vegetation suppression activities.
- Excellent people skills in order to work in partnership with the line clearance crews and vegetation suppression crews and to intelligently converse with customers
- Excellent communications skills with customers, crews, and Owner's personnel and able to convey explanations as to the procedures and techniques to be used.
- Understands the Contract with Owner and is able to adhere to it.
- Thorough knowledge of proper pruning techniques (natural and directional pruning) and the latest vegetation suppression tools and methods.
- Texas Department of Agriculture licensed category 5 pesticide applicator with a right-of-way subclass within six (6) months of classification date.
- Good knowledge of and ability to interpret engineering drawings and maps and utilize the information to increase personal and crew efficiency.
- Adept at efficient scheduling of crews and have adequate capabilities for keeping necessary records.

8) Field Representative - Supervisory/Management Classification

- Primary duty to oversee, assist and train personnel when needed in vegetation suppression application and proper pruning practices, to make customer contact, and coordinate and execute the required utility line clearance vegetation management or right-of-way maintenance needed on specified projects issued by Owner.
- Meets all conditions and abilities required in subordinate positions.
- 12 months experience as a General Foreman and/or Owner and Contractor written approval.
- Registered as a Certified ISA Arborist.
- Texas Department of Agriculture licensed category 5 pesticide applicator with a right-of-way subclass within six (6) months of classification date.
- Ability to instruct Contractor crews on Owner's pruning specifications and work goals to ensure overall efficiency and cost-effectiveness of the program.

9) Office Staff

- Contractor shall provide at no cost to Owner all office staff necessary to perform administrative work related to the Contract, answer phones and maintain radio contact with supervision and crews during working hours.
- Office Staff personnel shall perform other company business, i.e. parts, material and supply ordering; mail pickup or delivery; paperwork necessary for contract compliance and TDA record keeping; subcontractor monitoring; invoicing and any other business function so as not to reduce the daily productivity of the field work force, supervision, or contract administrative personnel.

- Unless otherwise approved by Owner, in the event that Contractor employee doesn't successfully obtain the certification(s) required for a classification change, Contractor shall refund or credit to AE the difference in bill rates. For example, if a Contractor employee is re-classified as a Field Representative, but after six months does not obtain the required Texas Pesticide Applicator license with a right-of-way subclass, Contractor shall re-classify employee to the previous job classification and refund the difference between the bill rates times the number of hours charged within 45 days.

10. <u>SAFETY</u>

a) Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and

programs in connection with the work. Contractor shall take all necessary precautions for safety and shall provide the necessary protection to prevent damage, injury or loss to all persons and real and personal property which may be affected by the work.

b) Contractor shall comply with all applicable Federal, State and local laws and regulations intended to protect the safety of persons or property, including but not limited to all applicable OSHA and ANSI Z133 standards, rules and regulations. Contractor shall erect and maintain all necessary safeguards for such safety and protection. All damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, Contractor's subcontractor, Contractor's supplier, or any person or organization directly or indirectly employed by any of them, to perform or furnish any of the work or anyone for whose acts any of them may be liable, shall be remedied by Contractor.

c) Since any work performed in the vicinity of energized electric systems has inherent risks, and because safety for employees and the general public is of the highest concern of the Owner, Owner has set forth certain safety guidelines within the Owner's Utility Safety Manual. The intention of this manual is to provide workers a set of “minimum” guidelines for the protection of Owner's employees, Contractor's employees, electric utility customers and the general public. Whenever working on or near Owner's energized system and whenever working with or in the close proximity of Owner's crews, Contractor shall adhere to all pertinent rules and regulations provided in the Owner's Utility Safety Manual (latest version) and all safety polices and procedures set forth by Owner. In the event of a conflict between Owner's Utility Safety Manual and any applicable Federal, State or local safety laws, rules, regulations or standards, the more stringent standard shall apply. The Owner encourages additional safety measures whenever conditions warrant.

d) Contractor shall prepare and deliver to Owner only upon request, a safety work plan to be used by Contractor. Contractor shall designate a qualified and experienced Safety Representative at the work site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Upon request of Owner, Contractor shall provide certifications or other documentation of the safety representative's qualifications.

f) In emergencies affecting the safety or protection of persons or the work at the site or adjacent thereto, Contractor, without special instruction or authorization from Owner, shall promptly and reasonably act to prevent damage, injury, or loss and to mitigate damage or loss to the work.

g) If there is an accident involving injury to any individual on or near the work, Contractor shall notify Owner immediately by phone or radio of the incident after insuring the safety of the Contractor’s workers and any other affected parties. Contractor shall be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports and other documentation that describes the event. Copies of such documentation shall be provided to Owner within forty-eight (48) hours of the event.

h) If there is an accident that causes damage to the Owner’s property or any third party property, the Owner is to be notified immediately by phone or radio of the damage after insuring the safety of the Contractor’s workers. This verbal notification will be followed up with written notification and investigation of the incident, including any disciplinary actions, within five working days of the incident.

11. NO VERBAL AGREEMENT

No verbal agreement or conversation with any officer, agent or employee of the Owner, either before or after execution of this Contract shall affect or modify Contractor’s obligations under this Section.

12. ERRORS OR AMBIGUITIES

The Contractor shall report any errors or ambiguities in the Specifications or any work order or assignment

to the Owner as soon as detected. The Owner shall issue a clarification or interpretation that shall be definitive.

13. Austin Energy would encourage the successful bidder(s) to investigate the feasibility of a mentor-protégé program.

14. Contractors shall be required to adhere to the requirements and processes set forth in the Attachments listed below:

a) Customer Notification Process - See Attachment (A)

b) Customer Resolution Process - See Attachment (B)

c) Line Clearance Performance Measures - See Attachment (C)

d) Line Clearance Performance Incentive/Disincentive Program - See Attachment (D)

e) Invoicing Process – See Attachment (E)

f) Fuel Cost Calculation – See Attachment (F)

g) Tree Pruning and Line Clearance Specifications—See Attachment (G)

CUSTOMER NOTIFICATION PROCESS

Proper customer notification is essential in maintaining good public relations when Austin Energy performs line clearing tree work. In response to customer concerns and an Electric Utility Commission directive, Austin Energy has established a process to educate and notify our customers of line clearance work. An "Advance Team", made up of Vendor employees will be used to initialize contact with our customers to inform them of tree work to be done in their area. A Vegetation Work Plan will be drawn up to document the amount of potential work on each property. No work will be done on a customer's property without the Vegetation Work Plan being correctly documented as discussed below, unless the work is in conjunction with emergency restoration work. The Vendor will be expected to provide qualified personnel, as required by the Contract, to staff the Advance Team. At least one (1) of Austin Energy's personnel will be designated to work with the Vendor personnel to optimize job performance and ensure customer satisfaction.

1. Regular Maintenance Work Procedures

a) Austin Energy identifies the areas to be worked for the Vendor(s), with estimated start and completion dates. At least ten (10) working days before the notification work begins, unless otherwise dictated to the Vendor by Austin Energy, Austin Energy Customer Service Representative (CSR) performs the following:
- Look up and notify Neighborhood Associations within the projected work area by certified letter
- A work order and the appropriate numbers are created in the work management system
- Any required maps necessary for the notification process and the line clearance activities are created. The maps generated by Austin Energy will show the line and streets. The Vendor will be responsible for obtaining any additional maps or other information the Vendor deems necessary to complete the work, unless otherwise agreed to in writing by Austin Energy
- The Austin Energy's Representative and Vendor are notified at the weekly staff meeting of any changes or additions to the work schedule.

b) Austin Energy's CSR will create customer information sheets and provide required information to the Vendor.

c) The Vendor will attempt to make initial contact with the customer, in person or by leaving a door hanger requesting an appointment. The Vegetation Work Plan will be drawn up at this time if there is access to the property. Vegetation Work Plans for each address are done to assess the tree conditions and determine the extent of work and a copy will be left with the customer or attached to the doorhanger. A detailed description of any work is also necessary.

d) If the customer is not the property owner, the Vendor will be responsible for attempting to make contact with the true property owner. The Vendor will be responsible for researching the following information. Assistance may be provided by Austin Energy, when applicable.
- Property information researched from appropriate Tax Appraisal records so Vegetation Work Plans may be filled out correctly.
- The name and telephone number of the property owner, if other than what is listed in the contact information provided

e) The Vendor's primary responsibility is to inform the property owner of the specific work to be accomplished in their yard. The Vendor will negotiate with the property owners to obtain a win-win situation. Any negotiations on clearance must coincide with maintaining a four-year management cycle. A good faith effort must be accomplished by the Vendor before it is returned to Austin Energy for further work. The Vendor needs to document all negotiations with the property owner.

g) If the property owner and the Vendor cannot reach an agreement within a reasonable amount of time, the Vegetation Work Plan will be returned to Austin Energy for resolution (see Customer Resolution Process). The Vendor will be responsible for notifying all applicable parties to ensure no scheduled work is completed on the property

h) If the Vendor cannot establish contact with the property owner after a reasonable effort, the property owner will enter **the Non-Contact Process** (see Customer Resolution Process). The Vendor will be responsible for notifying all applicable parties to ensure no scheduled work is completed on the property until the Non-Contact Process has been followed. A reasonable effort is currently defined as the following:

- The use of all applicable tools to determine ownership and contact information, including but not limited to the Internet, Telephone Information, Criss Cross, and tax appraisal records.
- At least one personal visit to the property, unless the property is vacant or otherwise specified by Austin Energy.
- At least one phone/fax attempt which will occur after 6 PM.

i) The Vendor will fill out all appropriate removal permits for all removals over eight (8) inches in diameter and turn them over to the appropriate Austin Energy personnel. This includes all removals on non-contacts. Austin Energy will send the forms to the appropriate Department.

j) The Vendor will update the information for each project on a weekly basis in a computer format provided by Austin Energy.

k) The Vendor will use the Vegetation Work Plans, formats, and maps to schedule and perform the work. The work will be accomplished to optimize cost effectiveness and customer satisfaction. Any deviation in the work will be handled through the Issues Resolution Process.

l) After the Vegetation Work Plans are completed by the line clearance crew, they will be turned over to Austin Energy on a weekly basis. They will be reviewed by the Inspectors for contract compliance. After completion of the project the Vegetation Work Plans that have the property owner's signature on it will be scanned and saved on a CD and returned to Austin Energy. Austin Energy stores the work plans with all other pertinent circuit information for historical data entry.

2. Ticket or Customer Request Jobs

a) Austin Energy's Customer Service Representative will receive individual requests for tree work from internal and external customers. The address and tree concern will be entered into a customer database.

b) Austin Energy's Customer Service Representative will generate a customer request log on a weekly basis for Austin Energy's Ticket Inspector.

c) Austin Energy's Ticket Inspector and/or Vendor General Foreman in charge of the Ticket Crews will be the Single Point of Contact for all customer notification for this type of work.

d) Austin Energy's Ticket Inspector and/or Vendor General Foreman will use Vendor Advance Team members as needed to ensure all ticket jobs have a work plan before any work actually occurs. A Vegetation Work Plan will only be drawn up if the work does not coincide with the normal scope of work used by the Vendor Ticket crews.

e) Austin Energy's Inspector and/or Vendor General Foreman schedule the work and ensure the work plans get to the appropriate Vendor Personnel.

f) The Customer Service Representative will receive the completed customer request log on a weekly basis from Austin Energy's Ticket Inspector. The Customer Service Representative will enter in the completion information and closing date into the database for historical reference.

g) After the Vegetation Work Plans are completed by the line clearance crew, they will be turned over to Austin Energy on a weekly basis. They will be reviewed by the Inspectors for contract compliance. Any Vegetation Work Plans that will be returned to the Customer Service Representative on the week after all corrections are completed. Austin Energy stores work plans with all other pertinent Ticket information.

3. Capital Improvement Projects (CIP)

a) Austin Energy's representatives will assign CIP work to the Vendor throughout the contract that have definite work completion dates that need to be met. Because of this, CIP work will have a priority over all other work types, excluding outage restoration, unless otherwise specified by Austin Energy.

CUSTOMER NOTIFICATION

b) Using the engineering plans provided, the Vendor's Pre-Planner will be responsible for making contact with the pertinent property owners and drawing up a Vegetation Work Plan. The Vendor will attempt to make initial contact with the customer, in person or by leaving a door hanger requesting an appointment. The Vegetation Work Plan will be drawn up at this time if there is access to the property. Vegetation Work Plans for each address are done to assess the tree conditions and determine the extent of work and a copy will be left with the customer or attached to the doorhanger. A detailed description of any work is also necessary.

c) If the customer is not the property owner, the Vendor will be responsible for attempting to make contact with the true property owner. The Vendor will be responsible for researching the following information. Assistance may be provided by Austin Energy, when applicable.

- Property information researched from appropriate Tax Appraisal records so Vegetation Work Plans may be filled out correctly.
- The name and telephone number of the property owner, if other than what is listed in the ULTRA database.

d) The Vendor's primary responsibility is to inform the property owner of the specific work to be accomplished on their property. The Vendor will negotiate with the property owners to obtain a win-win situation. Any negotiations on clearance must coincide with maintaining a four to five-year management cycle. A good faith effort must be accomplished by the Vendor before it is returned to Austin Energy for further work. The Vendor needs to document all negotiations with the property owner.

e) If the property owner and the Vendor cannot reach an agreement within a reasonable amount of time, the Vegetation Work Plan will be returned to Austin Energy for resolution (see Customer Resolution Process). The Vendor will be responsible for notifying all applicable parties to ensure no scheduled work is completed on the property until the Customer Resolution Process has been followed.

f) If the Vendor cannot establish contact with the property owner after a reasonable effort, the property owner will enter **the Non-Contact Process** (see Customer Resolution Process). The Vendor will be responsible for notifying all applicable parties to ensure no scheduled work is completed on the property until the Non-Contact Process has been followed. A reasonable effort is currently defined as the following:

- The use of all applicable tools to determine ownership and contact information, including but not limited to the Internet, Telephone Information, Criss Cross, and tax appraisal records.
- At least one personal visit to the property, unless the property is vacant or a rental property or otherwise specified by Austin Energy.
- At least one phone/fax attempt which will occur after 6 PM.

g) The Vendor will fill out all appropriate removal permits for all removals over eight (8) inches in diameter and turn them over to the appropriate Austin Energy personnel. This includes all removals on non-contacts. Austin Energy will send the forms to the appropriate Department.

h) The Vendor will use the Vegetation Work Plans and engineering plans to schedule and perform the work. The work will be accomplished to optimize cost effectiveness and customer satisfaction. Any deviation in the work will be handled through the Issues Resolution Process.

i) As the Vegetation Work Plans are completed, they are reviewed by the Inspectors for contract compliance. The Vegetation Work Plan that has the property owner signature on it and all property research information will be returned to AE on a weekly basis. If this information is documented on VWP copies, the Vendor will be responsible for collating. Austin Energy stores the work plans with all other pertinent CIP information.

CUSTOMER RESOLUTION PROCESS

Proper notification will resolve many of the questions a customer may have concerning the tree work. However, situations will occur where the customer has concerns about the work to be done on their property. Processes have been put into place by Austin Energy that ensures the customer will be treated courteously and appropriately, without significantly raising Austin Energy's cost of operations or negatively impacting service reliability. Austin Energy will work to make sure all customers are treated courteously and fairly and their concerns addressed in a timely and appropriate manner.

1. Customer Non-Contact Process

a) If the Vendor has not been able to make contact with the customer within the specifications delineated in the Customer Notification Process, the customer will enter the Non-Contact Process. The Vendor will notify the Project Manager and provide the original Vegetation Work Plan with the following information detailed on it, signifying a reasonable attempt has been made to contact the property owner.
- The date of the door hangings, when applicable
- The date and time(s) of the telephone contact attempt(s), if telephone number is available
- Evidence that a good faith effort was made to research the proper land owner information using all available resources

b) A certified letter will be sent to the customer allowing for a ten-calendar day response period by the customer. The letter will contain the Vegetation Work Plan and the telephone number of the Project Manager.

c) If the certified letter is returned unsigned, verification of receipt is obtained, or there is no response from the customer within the ten-calendar day response period, the Vegetation Work Plans will be turned over to the to the Vendor to work.

d) The Utility Forester will verify the Non-Contact process has been met and all information is present on a weekly basis.

e) The appropriate Vendor crews will accomplish the tree work outlined in the Vegetation Work Plan.

2. Customer Refusal Process

a) The Vendor will attempt to negotiate a win-win scenario with each property owner. If this cannot be accomplished, the Vendor will turn all pertinent information and Vegetation Work Plan over to Austin Energy to resolve in a timely manner. The Vendor will ensure no line clearance crews enter the property until the issue is resolved.

b) If the work delay directly affects another Austin Energy work group, the Inspector will communicate with that work group to explain the delay in work.

c) An Austin Energy representative will contact the customer and set up a personal meeting to discuss the work. An assessment of the tree(s) will be done to determine the extent of work necessary to obtain an acceptable amount of clearance between the lines and the tree(s). Refusals reaching this level should be vigorously negotiated in order to obtain acceptable clearance while addressing the customer concerns. The amount of resources expended on each situation will vary. Some tools that may be utilized at this level in the negotiation process include:
- Use of an Austin Energy arborist/forester to oversee tree work
- Replacement trees or other mitigation vegetation
- Possible line reroutes with the customer bearing the financial responsibility beyond the design phase.
- Additional tree/landscape work
- Reduced clearance if the professional assessment of the tree(s) in question indicates this possibility, with the customer bearing all of the financial responsibility beyond the routine work.

d) If the customer continues to object, the Line Clearance Superintendent will be notified to assist in the resolution of the situation. The Line Clearance Superintendent will make the determination whether additional resources should be expended to negotiate with the customer to reach a win-win conclusion. The amount of resources expended on each situation will vary.

e) If a compromise with the customer has not been reached, the Line Clearance Superintendent will make any contact necessary with the City Council liaisons to make sure all appropriate parties are notified of the issue. Austin Energy's Director of Support Services will be notified and give approval to proceed before any work is accomplished.

f) A certified letter will be sent to the customer detailing the work necessary to maintain the trees and other vegetation a safe distance from the electrical facilities. The customer will also be given documentation via mail at this time on:
- Service Regulations that outline Austin Energy and customer responsibilities as well as any customer potential liabilities.
- Any other information pertinent to the customer's issue

g) The Line Clearance Superintendent will arrange for all other necessary participants to accompany the contract crews to the work site to insure safety and adequate documentation.

h) Any tree work necessary to maintain the safety of the customer and his neighbors will be accomplished.

3. Post-Work Customer Complaint Resolution

All work done by Austin Energy and its Vendor crews is held to high standards of quality and customer satisfaction. Proactive customer communication ensures that the customer and an Austin Energy representative have reviewed all work that is to be accomplished. However, if the customer has some concerns with the work that was done on their property, The Utility Forestry Program has established additional processes to ensure the customer's concerns are addressed promptly by an Austin Energy representative. Austin Energy representatives will treat all customers who enter this process courteously and fairly

a) Any customer that has a concern about the tree work that was performed on their property will be documented by either the Austin Energy or Vendor personnel first contacted by the customer.

b) If the work has not been completed on the customer's property, the customer's information will be immediately communicated to an Austin Energy Inspector and Vendor General Foreman to ensure no additional work takes place on the customer's property.

c) The customer will be contacted by an Austin Energy representative to set up a personal meeting with the appropriate personnel to discuss the nature of the customer's concerns and to resolve any issues about the nature of the work done on their property.

d) The Austin Energy or Vendor personnel will provide a copy of the Work Plan to all involved parties to help resolve any tree work concerns.

e) A Vendor Representative will be present if the customer had any property damaged during the work process. The Vendor will be responsible for negotiating with the customer on any claims resulting from the Vendor's negligence. Austin Energy will only become involved if the claims are not resolved in a fair and timely manner.

f) A Utility Forester and/or Certified Arborist will be available if there are any concerns about tree health or amount of work done on the trees.

g) Austin Energy will determine the validity of the customer's concerns. If Austin Energy personnel or one of its representatives did not follow the work processes or damaged the customer's property in any way, Austin Energy will seek to address the customer's concerns using the following tools.
- Mitigation Trees
- Additional Tree work, i.e., dead wooding, thinning, etc.
- Repair of the property, if applicable

The amount of money and the time taken with each customer complaint will vary. All customers who enter this customer issues resolution process will be treated courteously and fairly by all of Austin Energy representatives. All contact with the customer will be documented and any resolution will be noted in this documentation to provide historical information to Austin Energy and to measure the success of the process.

CUSTOMER RESOLUTION PROCESS

All customer issues will be reviewed to determine if any additional process improvements are needed to the Utility Forestry Program.

Performance Evaluation Ratings

Proper Use of Equipment

3 All equipment as dictated in Contract and/or necessary for work completion is on site and in working condition and used by crews

2 One (1) piece of equipment as dictated in Contract and/or necessary for work completion is either not on site or in working condition but is made available within 45 minutes

1 More than one (1) piece of equipment as dictated in the Contract and/or necessary for work completion is either not on site or in working condition but is made available within 45 minutes

0 Equipment as dictated in Contract and/or necessary for work completion is either not on site or in working condition and is not made available within 45 minutes or repeated issues with work equipment

Clearance and removals

3 Proper Clearance and removals are completed for each property unless otherwise specified on VWP (Any deviations from AE specifications must meet with Line Clearance Leader's approval)

2 Proper Clearance and removals were not completed for one (1) to two (2) properties and no deviations were specified on VWP (Any deviations from AE specifications must meet with Line Clearance Leader's approval)

1 Proper Clearance and removals were not completed for three (3) to four (4) properties and no deviations were specified on VWP (Any deviations from AE specifications must meet with Line Clearance Leader's approval)

0 Proper Clearance and removals were not completed for more than four (4) properties and no deviations were specified on VWP (Any deviations from AE specifications must meet with Line Clearance Leader's approval) or deviations did not meet with Line Clearance Leader's approval

Shigo and Austin Energy pruning specification are used

(An infraction = chainsaw and pole saw cuts that are not to specifications and any peels on pruner cuts)

3 Approximately 95-100% of the evaluated prints are completed with proper cuts and oak wounds are properly painted and all herbicide treatments were done correctly

2 Approximately 90-94% of the evaluated prints are completed with proper cuts and oak wounds are properly painted or one (1) stump that is not treated correctly.

Performance Evaluation Ratings

1 Approximately 85-89% of the evaluated prints are completed with proper cuts and oak wounds are properly painted or two (2) stumps that are not treated correctly.

0 Less than approximately 84% of the evaluated prints are completed with proper cuts or oak wounds are not properly painted or three (3) or more stumps that are not treated correctly.

Work site left in good order and no property damage

3 No property damage complaints and work sites left in as good or better condition than before work started

2 One (1) to two (2) problems found at the properties worked and no property damage noted

1 Three (3) to four (4) clean-up problems found at the properties worked and no property damage noted

0 More than four (4) problems found at the properties worked or one (1) property damage complaint and/or property damaged noticed by Inspector, unless damage is documented and signed by customer before work is started or one (1) indication of herbicide spillage or misuse.

Work Efficiency

3 Contractor completed all work and does not need to return to property to correctly complete the job

2 Contractor must return to one (1) property to correct improper work or complete work as dictated by AE guidelines

1 Contractor must return to two (2) to three (3) properties to correct improper work or complete work as dictated by AE guidelines

0 Contractor must return to more than three (3) properties to correct improper work or complete work as dictated by AE guidelines

Weekly paperwork

3 VWPs and timesheets are turned over to Inspector in a timely manner with completion information and any additional comments initialed and all information correctly filled out

2 VWPs and timesheets turned over to Inspector in a timely manner and one (1) to two (2) corrections necessary on timesheet

1 VWPs and timesheets turned over to Inspector late but within one (1) day of timeline or three (3) to four (4) corrections necessary on timesheet

Performance Evaluation Ratings

0 VWPs and timesheets turned over to Inspector late and more than one (1) day after timeline or more than four (4) corrections necessary on timesheet or paperwork is illegible

VWPs filled out accurately Customer Service Representative (CSR) responsible)

3 All pertinent information is filled out and is correct; Project numbers are all documented; descriptions for vacant properties are accurate and concise with a tax appraisal number prominent or pole number when applicable; all non-contact documentation is correct and timelines are met

2 One (1) VWP needs to be corrected or not turned in by timeline

1 Two (2) to three (3) VWPs need to be corrected or not turned in by timeline

0 More than three (3) VWPs need to be corrected or not turned in by timeline

Performance Evaluation Ratings

Performance Measures Matrix

INSPECTOR			**JOB**			
CONTRACTOR			**DATE**			
PROPER USE OF EQUIPMENT (10%)			**3**	**2**	**1**	**0**
CLEARANCE AND REMOVALS (20%)			**3**	**2**	**1**	**0**
SHIGO AND PRUNING SPECIFICATION (20%)			**3**	**2**	**1**	**0**
WORK SITE LEFT IN GOOD ORDER/PROPERTY DAMAGE (15%)			**3**	**2**	**1**	**0**
WORK EFFICIENCY (20%)			**3**	**2**	**1**	**0**
WEEKLY PAPERWORK (5%)			**3**	**2**	**1**	**0**
NOTIFICATION (10%)			**3**	**2**	**1**	**0**

Incentive / Disincentive Program

The Owner's goals are to drive down the cost of performing tree work, maintain service reliability and improve customer relations. An incentive payment may be earned by the Vendor on a biannual basis based on the Performance Measures detailed in the Contract. However, there is also the possibility of a disincentive payment if the Vendor does not meet the goals outlined by the Owner. Production Benchmark goals and work schedules must be met for each project.

Biannual Evaluation

The Vendor's performance evaluations will determine the Biannual Incentive or Disincentive. Performance Evaluations will include all work accomplished by the Vendor. The Vendor will receive the crew evaluations on a weekly basis and have ten (10) calendar days to review the information for accuracy. Invoicing efficacy will be determined on a biannual basis. Project Evaluations will be determined as the projects are completed. The Vendor will have ten (10) days after the biannual meeting has been held to review the biannual information for accuracy. The Contract Manager must receive any concerns, with quantifiable information, about the meeting in writing within that ten- (10) day period which will be forwarded to the Operations Manager for review.

Projects will be turned in within ten business days of work completion. If, in the opinion of the Operations Manager, the Contractor is delaying completion of a project, the Operations Manager may establish a timeline and completion date for the project. The date each project is completed will determine the biannual performance evaluation to be used in calculating the incentive/disincentive payments. For example, if Project A was started in the first quarter but completed in the 3rd quarter, the performance evaluations used will be those for the 3rd quarter. The Operations Manager will notify the Contract Manager of all deficiencies involving performance issues where formal action is required by Contract Management.

Field Performance Evaluations – Biannual

Performance Evaluations	**% of Total Field Performance Evaluations Score**
Crew weekly performance evaluations	85%
Project Evaluation	10%
Invoicing Efficacy	5%

The Incentive dollar amount will be based on the actual savings produced by the Contractor exceeding the Production goals. If Contractor beats the cost per foot goal by more than 10% and meets its performance goals, the Contractor earns an incentive that would have a maximum value of ½ of the total remaining savings realized by Austin Energy. However, if there are any preventable outages caused by the Contractor during that quarter, there will be no incentives earned by the Contractor.

Biannual Performance Evaluations – Incentive Scenario

100 - 90%	*Full incentive earned (1/2 of the savings above 10%)*
89 - 80%	*½ of incentive earned (1/4 of the savings above 10%)*
79% or below	*No incentive earned*

Incentive / Disincentive Program

Incentive Scenario – Biannual

Performance Criteria	Vendor A	Vendor B
Actual Cost of Project	$70,000	$100,000
Benchmark Cost of Project	$100,000	$150,000
Total Savings	$30,000	$50,000
Austin Energy 10% Savings	$10,000	$15,000
Savings over 10%	$20,000	$35,000
Average of Performance Evaluations	98	87
Contractor Incentive Pay out	**$10,000**	**$8750**
Total Savings by Austin Energy	**$20,000**	**$41,250**

Costs that are in excess of the estimates are also shared in the same way savings are shared. Austin Energy pays the first 10% over the benchmark cost and The Contractor and Austin Energy split the costs above 10%, unless performance goals are not met.

Biannual Performance Evaluations – Disincentive Scenario

100 - 90%	*1/2 of cost overruns above 10%*
89 - 80%	*2/3 of disincentive earned (2/3 of cost overruns above 10%)*
79% or below	*Full disincentive earned (All cost overruns in excess of 10%)*

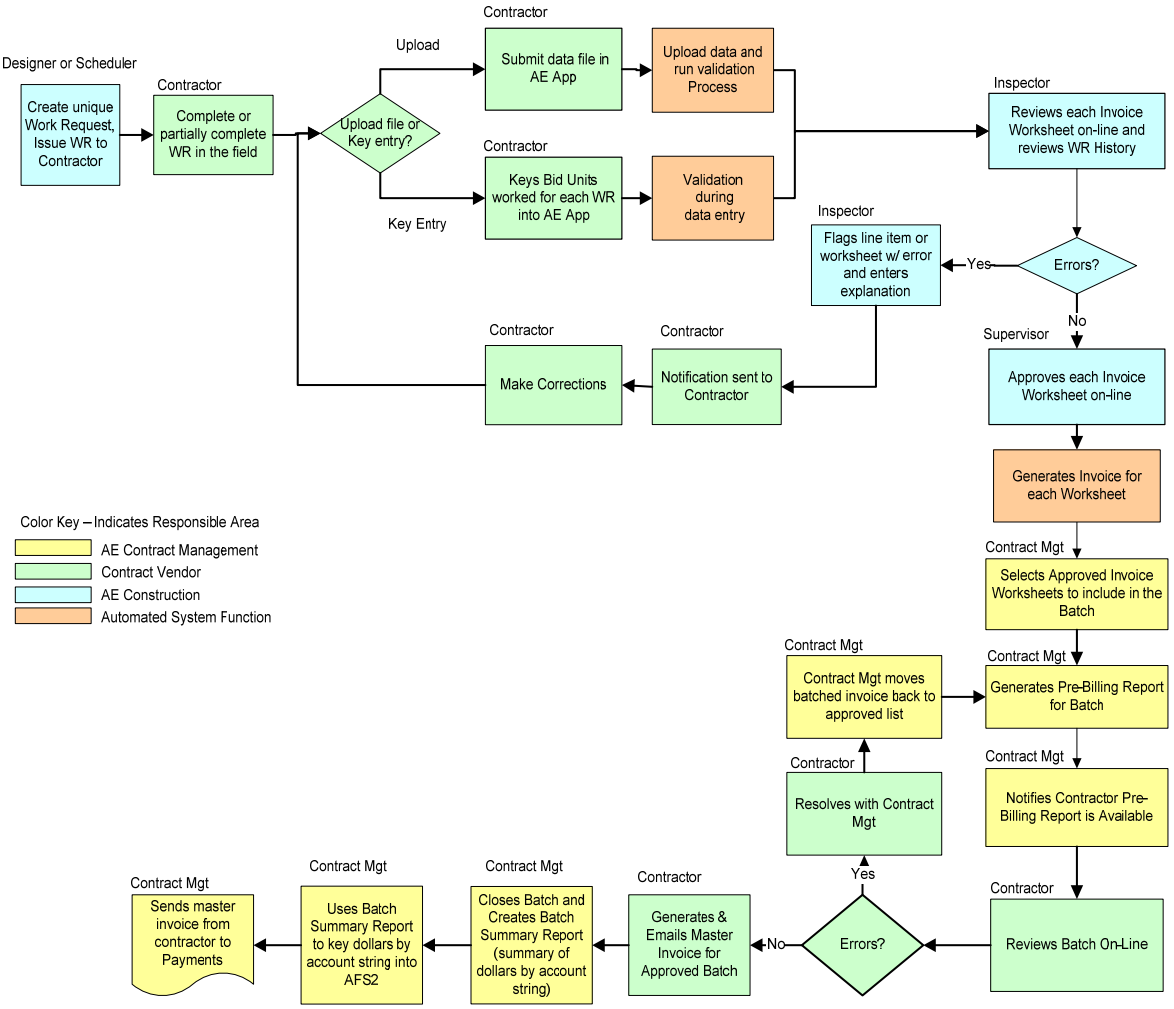
Disincentive Scenario – Biannual

Performance Criteria	Vendor A	Vendor B
Actual Cost of Project	$100,000	$150,000
Benchmark Cost of Project	$70,000	$100,000
Total Cost Overrun	$30,000	$50,000
Austin Energy Cost Overrun paid (10%)	$7,000	$10,000
Cost overrun over 10%	$23,000	$40,000
Average of Performance Evaluations	98	87
Contractor Disincentive Pay out	**$11,500**	**$26,668**
Total Cost Overrun paid by Austin Energy	**$18,500**	**$23,332**

AUSTIN ENERGY INVOICING PROCESS

The AE Invoicing Process

Austin Energy (AE) needs specific information from the contractor to create invoices and process the invoices for payment. The process flow chart below depicts the Austin Energy contractor invoicing process. The green-shaded activity boxes represent the contractor's responsibilities for this process. Key to this process is the requirement that the contractor submit invoice data to AE utilizing one of two methods. The contractor may create and submit a file containing invoice data, or the contractor may directly key the invoice data into the AE application.



Invoice Data

If the contractor chooses to submit a file for upload, this file can be an XML or CSV text file. At a minimum, the contractor will include the data fields listed in the following table. Final file format specifications will be provided prior to the contract's effective date, including field attributes such as field length and type. AE anticipates minimal changes to these data requirements shown below.

AUSTIN ENERGY INVOICING PROCESS

These data fields represent the information required to process invoices.

Data Field	Description
Header Information	
Contractor Invoice ID#	Unique contractor assigned number identifying the invoice
Date	Date worksheet is created
Work Request Number	AE identifier assigned to every job. This number is provided on all job documents provided to the contractor
Work Location	General or specific job address
AE Inspector	Name of the AE inspector responsible for the job
Payment Type	Unit, Hourly, or Lump Sum
Comments (optional)	General comments from the contractor to AE
General Description (optional)	General description of work performed
Detail Information	
Unit ID	Bid Unit identifier as defined in the Contract
Quantity	Number of units worked
Multiplier	Multiplier for a unit (if applicable)

Sample Text File

Shown in the table below is an excerpt from a sample text file, like the one AE would require for submittals. This format is only an **example** of the actual file format. Subsequent to December 16th, AE ITT staff will work with contractor to finalize file structure.

invoice #	*date*	*contract#*	*work location*	*AE inspector*	*pa*	*description*	*comments*	*WR#*	*bid unit*	*qty*	*multi*
H	1169521	9102004	S010004	3014 S Lamar	Gonzales	H					
D								10201	1.06	1	1
D								10201	1.07	4	1
D								10201	2.01	4	1
D								10201	2.27	4	1
D								10201	2.34	1	1
D								10201	1.04	8	1
H	1169522	9102004	S010004	11213 Research Blvd	Williams	L					
D								10211	22.08	11	1
H	1169523	9102004	S010004	15 Hank Road	Williams	L					
D								10212	22.01	155.27	1
H	1169524	9102004	S010004	721 Barton Springs R	Gonzales	H					
D								10223	1.04	6.5	1
D								10223	2.34	2	1
D								10223	2.28	4.5	1
D								10223	2.01	3	1
D								10223	1.06	2	1
D								10223	1.03	4.5	1
D								10223	1.07	7	1
H	1169525	9102004	S010004	1212 Justin Lane	Franks	H					
D								10228	1.07OT	5	1
D								10228	2.03	16	1
D								10228	2.34	12	1
D								10228	2.28	36	1
D								10228	2.22	19	1

FUEL CALCULATION - ATTACHMENT F

The fuel cost increase will be factored into the overall equipment cost, per individual line item, using the following calculation:

The fuel use rate (gallons per hour) for each piece of equipment, will be multiplied by the existing fuel price which will give the existing fuel component amount. The same will be done using the new fuel price. The difference between the new fuel component and the existing fuel component will be added to the overall hourly equipment rate for each line item of equipment that is affected by the fuel price increase.

EXAMPLE:

Bid Item	Unit	Description	Existing Unit Price	(A) Fuel Use Rate (gal. per hour)	(B) Existing Fuel Price	(C) Existing Fuel Component	Base Unit Rate (without fuel component)	(D) New Fuel Price	(E) New Fuel Component	(F) Fuel Component Difference	New Unit Price
1.2.01	Hour	$^{3}/_{4}$ - ton Pickup Truck	$5.25	$0.93	$1.33	1.2369	$4.01	$1.88	1.7484	0.5115	$5.76

Existing:	(A) $0.93	x	(B) $1.33	=	(C) 1.2369	=	(F) 0.5115		
New:	(A) $0.93	x	(D) $1.88	=	(E) 1.7484				

AUSTIN ENERGY
TREE PRUNING AND LINE CLEARANCE SPECIFICATIONS
SMH0123

INTRODUCTION

These Tree Pruning Specifications and Requirements, together with the **American National Standards Institute ANSI A300, "Standard for Tree Care Operations"** (2008 Pruning Revision of ANSI A300 (Part 1)-2001, or subsequent revision), shall govern all pruning and/or removal of any plant or tree growth interfering with the safe operation of any City of Austin Energy (AE) facility. Where any discrepancy or contradiction exists between this contract document and the ANSI standard, the requirements of the contract document shall prevail.

The primary goal for the line clearance tree pruning program is to maintain a safe and reliable electrical transmission and distribution system. These specifications and requirements prescribe arboricultural standards to ensure consistent tree pruning practices, and efficient, economical line clearance maintenance. They shall provide a basis for determining whether tree pruning is necessary or appropriate, and shall dictate the arboricultural methods to be adhered to in the performance of the work activity described in this document.

AE is obliged and committed to compliance with the terms and conditions of City of Austin General Development Permit No. GP-08-0000.AEU, and any subsequent extension or renewal. The Vendor shall be familiar with these terms and conditions, and will ensure that no violations occur as a result of the Vendor's actions.

All tree work shall conform to approved principles and techniques of modern arboriculture. Proper line clearance tree pruning shall direct tree growth away from electrical conductors and facilities, extend pruning cycles, and reduce the overall amount of future pruning work required. AE shall determine the appropriate distances between all plant or tree growth and electrical facilities. Because of the difficulty in developing line clearance tree pruning policies which would cover all circumstances, AE reserves the right to assess, on a case-by-case basis, any special situations where the strict application of these specifications and requirements might be impractical or inappropriate.

I. PRUNING SPECIFICATIONS

The following specifications shall apply to all tree pruning unless otherwise specified herein. For the purpose of this line clearance tree pruning contract, a tree shall be considered to be a self-supporting woody perennial plant, having a trunk diameter of no less than two inches (2") at maturity, measured at four and one-half (4-1/2) feet (Diameter at Breast Height, or DBH), with one (1) or more branches developing from the stem or trunk. Plants containing multiple trunks or stems, each of which exceeds two inches (2") in diameter (DBH), will be considered to be one (1) tree when those stems originate from a common root crown, or are less than six inches (6") apart.

A) The most important technique in pruning a tree is the **collar cut**. This term refers to the final pruning cut to remove a limb just outside the raised portion (branch collar) of the branch junction with the trunk or another limb. A proper collar cut will minimize the exposed surface area of the cut surface. All limb or branch removals shall be performed using the collar cut method.

B) When removing a lateral branch at its point of origin on the trunk or parent limb, the final cut shall be made in branch tissue close to the trunk or parent limb, without cutting into the branch bark ridge or collar, or leaving a stub. (ANSI A300 Standard 5.3.2 and 5.3.3).

C) When removing a dead branch, the final cut shall be made just outside the collar of live tissue. If the collar has grown out along the branch stub, only the dead stub shall be removed. The live collar shall be left intact and uninjured. (ANSI A300 Standard, 5.3.6).

D) No stub and/or flush cuts shall be left on the trunk or supporting branch unless specifically requested by the property owner and specifically approved by AE, prior to the removal of branch or limb.

E) Old stubs from prior stub cuts that have re-sprouted and re-grown into the electrical conductor clear area shall be removed to the branch collar of the stubbed-off limb, or may be pruned to a lateral limb, behind the stub, large enough to assume the terminal role, consistent with these pruning specifications and requirements.

F) The three-cut method should be used in order to prevent ripping or peeling of the bark on the trunk or parent stem from which the limb is removed.

G) When a leader, dominate or co-dominate stem is to be removed, it shall be removed back to a lateral limb or branch no less than one-third (1/3) of the diameter of the portion being removed.

H) When removal of an entire lateral limb back to the branch collar on the parent stem would remove excessive branch tissue and foliage, and is not necessary to obtain the required line clearance, the leader of a lateral limb may be pruned to a lateral limb large enough to assume the terminal role. In making a thinning cut in this instance, the final cut shall be beyond the branch bark ridge of the crotch.

I) All final lateral pruning shall be concluded at a branch collar on the supporting branches or trunks growing away from the electrical facility, so that the growth of the tree is directed away from electrical facilities (directional pruning).

J) Directional pruning is used to redirect side growth away from the electrical facilities. Limbs growing towards the facilities are removed to appropriate limbs or trunk to train the tree away from the electrical facilities.

K) Drop crotch pruning is used to reduce the height of a tree by removing dominant or co-dominant stems in the center of the crown of the tree and direct growth away from the electric lines overhead. This method of line clearance pruning is most often used when the conductors are involved with the center of the tree crown. Limbs should be cut at the branch bark ridge, consistent with proper arboricultural techniques, as detailed in B) above.

L) All tree pruning wounds and other wounds caused by AE operations on oak trees shall be treated promptly with a thin but complete covering of an approved non-phytotoxic tree wound dressing. Wounds on oaks shall be treated before moving to another part of the tree, and prior to descending the tree. All oak stumps shall be painted with a tree wound dressing, as required on all oak wounds. No other tree species shall be painted unless specifically requested by the property owner, or directed by AE. (ANSI A300 Standard, 5.4.1).

M) Rips and peels are not acceptable and shall be avoided, but if they occur, tree wound dressing may be applied, as a cosmetic treatment only. Tree wound dressing may be applied as a cosmetic treatment on large wounds.

N) To help prevent the spread of oak wilt disease, all cutting tools (hand and powered) shall be surface disinfected with a seventy percent (70%) or higher solution of alcohol and water. Other disinfectants, such as Lysol, or 10% chlorine bleach (sodium hypochlorite) and water solution, or other AE approved disinfectant may be substituted. Disinfectants shall be applied prior to commencing any pruning on the job site, and immediately after pruning oaks suspected to be infected with oak wilt. Vendor shall follow guidelines of the City of Austin Oak Wilt Prevention Policy.

II. LINE CLEARANCE

Line clearance distances attained during tree pruning operations shall vary depending on the power line voltage and the type of trees encountered. Higher voltage power lines require greater clearances. Fast growing trees shall be pruned to provide more clearance from electrical facilities than slow growing trees. The tree pruning operation shall provide clearance as appropriate for the line voltage and average growth rate of the affected trees, with the overall objective of achieving a minimum four (4) to five (5) year pruning cycle. In all instances where trees have been previously pruned for line clearance, the original clearance distance should be maintained at a minimum, wherever possible.

Line clearing shall begin only after careful consideration of the position occupied by the electric facility relative to the adjacent trees, and the growth rate of the affected trees.

The clearances specified shall be consistently achieved. Special efforts shall be undertaken for reasonable resolution of any property owner objections or disputes.

DISTRIBUTION FACILITIES

If the pruning required to obtain adequate clearance from an electric facility (i.e., leaning pole, low pole height, sagging wire) would significantly affect the shape of the tree, the Vendor shall consult with the AE Inspector to determine if the electric facilities can be adjusted to reduce the pruning required.

Telephone or TV Cable facilities shall not be considered in determining line clearances.

A) **Primary conductors 600 volts to 12,500 volts** - Minimum clearance shall be 4 to 8 feet, depending on the tree species. Additional line clearance may be required to allow for the annual growth of the vegetation to maintain a 4 - 5 year right-of-way maintenance cycle. The Vendor shall remove all overhanging branches above the top of the pole or primary conductor, or as directed by AE.

B) **Secondary conductors less than 600 volts** - Minimum clearance shall be 4 to 6 feet, depending upon tree species. Additional line clearance may be required to allow for the annual growth of the vegetation to maintain a 4 - 5 year right-of-way maintenance cycle.

C) **Service drops and streetlight conductors** - 2 to 3 feet, depending upon tree species. Service drops and street light conductors will only be pruned when Vendor crews are working in the area and limbs are applying pressure to the facilities. The cost effectiveness of re-routing the wires will be considered before any line clearance work is completed. Tree removals will not be done on these wire types.

D) **Poles, Guy Wires, Down Guys, Transformers, and Other Electric Facilities** - The Vendor shall free guy wires and down guys of weight, strain or altered position caused by contact with tree limbs or branches. Guy wires, down guys and poles shall be free of vines. AE, at its sole discretion, shall determine whether to cut and/or remove all vines or plant growth obstructing or limiting accesses, at the base of, or on the affected electric facility.

E) **Street lights and night watchmen lights will not be part of the Utility Forestry Section line** clearance program. Any trees that need to be maintained for illumination purposed are solely the responsibility of the owner or PARD/Public Works.

F) **New Construction** - The customer requesting service will be asked to be responsible for clearing all trees in the ground easement to meet the requirements of AE. All required tree removal permits will be the responsibility of the customer and will be completed by the customer. The AE's Vendor will be responsible for pruning all trees to establish necessary aerial clearance to provide safe and reliable electric service.

TRANSMISSION FACILITIES - 69,000 volts to 345,000 volts

Federal oversight, through the authority of the North American Electric Reliability Corporation (NERC) has power to levy fines for vegetation-caused transmission outages. Transmission reliability is of highest importance and the goal of AE is to maintain maximum clearance distances possible to avoid any preventable tree-caused outage on the transmission system. Wherever possible, the following transmission specifications shall be obtained by the Contractor. The Vendor shall inform AE personnel where these clearances can not be obtained.

A) Trees and other vegetation will be pruned or removed to allow for a minimum of 20 feet of clearance near all transmission conductors, poles or structures and a minimum of 25 feet at mid-span, to allow for sag and sway. Additional line clearance may be required to allow for the annual growth of the vegetation to maintain a 4 - 5 year right-of-way maintenance cycle. In all instances where trees have been previously pruned for line clearance, the original clearance distance shall be maintained, at a minimum, by the removal of resprouts since the last pruning. Some pruning cuts may be more than the minimum 20' to 25' line clearance distances to achieve the proper clearance with collar cuts. Maximum line clearance distances are preferred.

B) In rural or undeveloped areas, as right-of-way conditions allow, any vegetation in the AE right-of-way that has the potential to grow into the clearance zone (20 feet minimum clearance near poles or structures and 25 feet at mid-span) of the transmission conductors, should be targeted for removal. Any vegetation in the AE right-of-way, or beneath the transmission conductors, that have the potential to obstruct right-of-way access, or access to the transmission structure should be targeted for removal. This includes trees growing beneath conductors and structures, vegetation blocking AE access gates and any vines on facilities. As right of way conditions allow in rural or undeveloped areas, the right-of-way shall be kept clear of woody vegetation by mowing or other appropriate methods. Wherever possible and practical in rural or undeveloped areas, the AE right-of-way shall be cleared to the edge of the easement.

C) The Contractor shall remove all overhanging branches above the top of the transmission conductors and structures, without exception.

D) An access corridor will be maintained free of any woody plants to provide access by AE to the transmission facilities to repair and maintain the transmission grid.

E) Any hazardous tree within the right-of-way that poses a hazard to any transmission facility, at the sole discretion of AE, shall be pruned or removed to mitigate the hazard. Any vegetation outside of the AE right-of-way that presents a hazard to the transmission facilities will be pruned back or removed to the limits of the right-of-way.

F) Poles, Guy Wires, Down Guys, and Other Transmission Facilities - The Vendor shall clear tree limbs or branches a minimum of 4 - 6 feet from guy wires and down guys. The Contractor shall cut and/or treat all vines growing on all transmission facilities. AE, at its sole discretion, shall determine whether to cut and/or remove plant growth obstructing access at the base of the transmission facility. Wherever practical, a clear area shall be maintained at a structure to allow for truck set-up.

F) In designated Balcones Canyonlands Preserve (BCP) bird habitat areas, proposed line clearance work must be submitted for the BCP review process for approval. Access corridors shall not exceed 20 feet in width, unless to allow for clearance of truck booms. In accordance with the review process, line clearing is limited to the removal of fast growing species directly below transmission conductors and pruning to provide at least 20 feet of clearance from conductors. Line clearance activity, other than emergency response, is prohibited in these habitat areas between March 1 and September 1.

G) In any other area determined to be endangered species, including the Houston Toad, habitat by the US Fish & Wildlife Service, any vegetation management must comply with established regulations

and procedures. Work scheduling and certain clearing methods may be restricted by the US Fish & Wildlife Service.

TREE REMOVALS

Tree removals are an unavoidable component of a utility forestry program. Problem trees and other vegetation often need to be removed from near electrical facilities to correct a hazardous situation, improve service reliability, and to provide access to the electrical facilities. When considering a tree removal, the AE personnel or Vendor needs to consider the condition and specie of the tree, its placement and the priority of the tree removal. Every reasonable effort should be made to communicate with the customer to obtain informed consent prior to removal of these problem trees from near the electrical facilities.

TREE REMOVAL CANDIDATES

A) Dead, dying, diseased, or unstable trees (danger trees) which presents a danger to utility facilities or where a tree is destabilizing utility structures.

B) A tree that is totally involved with the utility facility and can not be effectively pruned to provide adequate clearance from electrical facilities and the continued health of the tree. Such trees located near schools, or other public areas where a person could easily climb and contact the electrical facilities present a serious safety concern.

C) Fast-growing trees, that may interfere with the electrical facilities, present a safety concern and/or hinder service reliability before the next tree maintenance cycle.

D) Trees with dominant terminal leaders (pines, etc.) that can not be directionally pruned away from the electrical facilities

E) Immature trees that can be economically removed from near the electrical facilities to prevent future reliability concern

TREE REMOVAL CONDITIONS

A) With the informed consent of the property owner or customer, removal of trees should be limited to the area within the distribution easement or up to ten feet either side of distribution conductors and within transmission rights of way, unless a dangerous situation exists.

B) A tree removal should be cost effective to AE. A tree removal should be limited to twice the time it would take to prune the tree. Exceptions would include trees near the main line circuits and danger trees.

C) Low-growing trees under distribution lines, which have a mature height of less than 25 feet, should not be removed unless directed by AE for access and clearance around electrical facilities.

D) Stumps shall be cut as close to the ground as possible. All oak tree stumps shall be painted with a tree wound dressing, as required on all oak wounds. With customer consent, the stump will be treated with an EPA -approved herbicide to prevent re-sprouting.

E) All proposed removals of trees 8” in diameter at breast height (DBH), or larger, must be reported by AE or Vendor field personnel to the Utility Forester for review and submittal to the City Environmental contacts at least two days prior to removal. Any proposed removals of trees19” DBH, or larger, must have a signed permit approved prior to pruning 25% or more of the canopy, or prior to removal of the tree, as required by the City Protected Tree and Heritage Tree Ordinance.

INDIVIDUAL REQUESTS FOR ASSISTANCE- TICKETS

AE receives numerous requests from customers to prune trees on their property near the electrical facilities. The Utility Forestry Section is responsible for evaluating and taking appropriate actions on these requests. The following shall apply to individual requests for pruning trees near to AE facilities.

General Specifications
Each request shall be evaluated individually, and may require a site visit by AE or Vendor personnel.

A) If is determined that the customer request should be granted on an expedited basis, at the direction of Owner, the Vendor shall schedule and perform the work as soon as possible.

B) The customer may be directed, at the option of AE, to request a temporary disconnection of their service drop to allow safe tree pruning or removal by the customer, without the services of the Vendor.

C) The Vendor will be required to provide AE with information on work order status for customer request jobs on a weekly basis.

TOPPING FOR REMOVAL

Property owners will often request AE assistance with tree removals near the electrical facilities. The Inspector or Vendor will evaluate the removal and determine if its removal by the property owner would constitute a threat to the electrical facilities. In cases where a threat is perceived, the Inspector or Vendor will work with the property owner to remove any parts of the tree that are in danger of contacting the electrical facilities. It is the property owner's responsibility to remove the rest of the tree. Listed below are the AE procedures.

A) At the request of a property owner, with notification and approval of appropriate City Environmental authorities, AE will direct the Vendor to remove only those branches which could come into contact with the electrical facilities for the property owner to safely complete the tree removal.

B) If necessary, AE facilities shall be temporarily removed or de-energized by AE to permit safe removal of the tree by the property owner.

C) For removal of trees sixty inches (60”) or more in circumference, or nineteen inches (19”) or more in diameter (DBH), measured four and one-half (4-1/2) feet from ground level, the property owner is required, under City ordinance, to obtain an approved tree removal permit (Protected or Heritage tree permit) from the City Arborist’s office. The Vendor shall not commence work prior to verification of the required permit.

DISPOSAL OF PRUNED MATERIAL

Wood chips are usually disposed of at the specified locations agreed to by the Owner and Vendor. The following shall apply to cleanup, removal and disposal of pruned material.

A) The Vendor shall remove and dispose of only those trees, plants or portions of trees pruned by the Vendor. When possible, removal and cleanup shall be completed daily by the Vendor before leaving the job site. No cut limbs, woody debris, trash or other debris will be left on the premises without prior consent of the property owner and responsible AE personnel. Logs will be cut into manageable lengths and stacked neatly on the property, unless otherwise requested by AE or the property owner. No woody debris, trash or other debris will be left in roads or drainage ditches.

B) Removal and disposal of portions of any tree pruned by the property owner, or portions of any tree not affecting the electrical facilities, are the responsibilities of the property owner.

C) The Vendor shall promptly clean up and remove all debris produced by AE personnel performing routine or emergency tree pruning when instructed by appropriate AE personnel.

D) The Vendor should make every effort to find alternate dump sites for chips or woods, with property owner approval, near the work location if at all possible. Any alternate disposal sites must meet any environmental restrictions for the particular area and must not be left in roads, ditches or adversely affect drainage or access.

E) Oak wood from Spanish, Blackjack or red oak trees suspected of being infected with oak wilt disease shall not be left on site and shall be disposed of at the appropriate location.