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**Audit Report**

**AE CONTRACTS: TREE TRIMMING**

**October 23, 2007**

Office of the City Auditor  
Austin, Texas

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# City of Austin

## Office of the City Auditor



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Date: October 23, 2007  
To: Mayor and Council  
From: Stephen L. Morgan, City Auditor  
Subject: AE Contracts: Tree Trimming

I am pleased to present this audit report on Tree Trimming Contracts at Austin Energy (AE).

We found that AE has implemented policies and procedures to provide assurance of compliance with federal, state, and local laws and provide guidance for the tree trimming program. In addition, AE has controls in place to provide reasonable assurance that tree trimming work is being done to AE's satisfaction, although internal communication could be improved. However, the performance measures for the tree trimming program are not adequate to determine whether the objectives of the program are being met.

We made two recommendations to AE aimed at improving internal communication and the system of performance measurement for the tree trimming program. AE has concurred with both recommendations.

We appreciate the cooperation and assistance we received from AE staff in the line clearance and contract compliance groups during this audit. We look forward to continuing our work with the utility to improve its operations.

Stephen L. Morgan, CIA, CGAP, CFE, CGFM  
City Auditor



## COUNCIL SUMMARY

The purpose of this audit of the Austin Energy (AE) Tree Trimming Contracts was to determine if AE is in compliance with laws and regulations regarding tree trimming, determine whether the contract monitoring system is providing assurance that contracts are being managed properly, and determine whether tree trimming contractors are providing service in a way that achieves the goals of the program.

AE uses third party contractors to perform much of its maintenance, one-time installations, and certain essential operations. Currently, AE has outsourced the tree trimming activity for distribution lines to Asplundh Tree Expert Company and Davey Tree Surgery. Additionally, AE has outsourced the tree trimming for transmission lines to Asplundh. The total contract authorization for tree trimming services amounts to approximately \$60 million for distribution lines and \$15 million for transmission lines for the most recent 5-year funding allocation for a two-year contract with three one-year extensions for both contractors.

We found that AE has implemented policies and procedures that provide assurance of compliance with federal, state, and local laws and provide guidance for the tree trimming program. In addition, AE has controls in place to provide reasonable assurance that tree trimming work is being done to AE's satisfaction, although internal communication could be improved. However, the performance measures for the tree trimming program are not adequate to determine whether the objectives of the program are being met.

We have issued two recommendations that address the need for AE to improve communication between the AE contract compliance and line clearance groups and develop a better system of performance measurement to be used to hold contractors accountable.





## ACTION SUMMARY AE CONTRACTS



<b>Recommendation Text</b>	<b>Management Concurrence</b>	<b>Proposed Implementation Date</b>
01. AE's Director of System Operations and Reliability should formalize communication by implementing a reporting system with regularly scheduled meetings between contract compliance and line clearance personnel to discuss procedural issues.	CONCUR	September 2007
02. AE's Director of System Operations and Reliability should develop performance measures that provide information on improvement to system reliability, cost effectiveness, and customer satisfaction and use these measures to hold contractors accountable.	CONCUR	April 2008



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## **BACKGROUND**

In 2003, Austin Energy (AE) adopted a strategic plan that was updated in 2006 detailing the mission, goals, and objectives for the utility. AE's mission of providing clean, affordable, reliable energy and excellent customer service is supported by three objectives that impact the tree trimming program: increased system reliability, cost effective service delivery, and improved customer satisfaction.

AE uses third party contractors to perform much of its maintenance, one-time installations, and certain essential operations. Currently, AE has outsourced the tree trimming activity for distribution lines to Asplundh Tree Expert Company and Davey Tree Surgery. Additionally, AE has outsourced the tree trimming for transmission lines to Asplundh. The current contract covers work that will be done over the next two years with three one-year extensions. The total contract authorization amounts to approximately \$60 million for distribution lines and \$15 million for transmission lines.

The AE Contract Compliance Group manages compliance affairs for AE business units and reports to the Director of the Financial Compliance Division. The project coordinator over tree trimming oversees the tree trimming contracts at AE and reports to the Contract Compliance Group Manager. The Project Coordinator monitors contractors' wages, minority participation percentages, assists with resolutions and conflicts, and reviews and approves bill payment invoices to contractors.

The tree trimming program includes both the transmission and distribution (T&D) line sections. The objectives of the program are safety and improved system reliability. Secondary objectives of the tree trimming program include improved customer satisfaction and cost effectiveness.

The AE Line Clearance Superintendent oversees the tree trimming field operational activities of the program for the T&D sections and reports to the Director of System Operations and Reliability. The line clearance group is responsible for managing the execution of the contracts.

Local and state agencies are the primary regulatory agencies that regulate the tree trimming activity for the distribution lines at AE. Also, the tree trimming activity for the distribution lines at AE is for the most part guided by National Standards and industry practices that, in turn, are adopted as policy by local and state agencies. Transmission lines are regulated by the Electric Reliability Council of Texas (ERCOT). ERCOT completed an audit of tree trimming work around transmission lines at AE and found AE to be compliant with all ERCOT protocols and guidelines for 2007.

The Office of the City Auditor (OCA) decided to do this audit based on the amount of money involved in the program, the amount of public interest in the program, and the program's impact upon the strategic goals of the utility, especially system reliability. This audit was approved as part of the OCA FY07 service plan.

## **Objectives, Scope, and Methodology**

### **Objectives**

Our objectives for this audit were to:

1. Determine if AE is in compliance with federal, state, and local laws and statues regarding tree trimming.
2. Determine whether the contract monitoring system is providing assurance that the contracts are being managed properly.
3. Determine whether the tree trimming contractors are providing service in a way that achieves the goals of the program, specifically whether tree trimming.
  - Improves reliability.
  - Is cost effective.
  - Improves customer service ratings.

### **Scope**

The scope included an evaluation of the activities of the AE Tree Trimming Contract Compliance Group as well as the AE Line Clearance Group. The work focused only upon tree trimming work that affects distribution line clearance. The period covered was the 5 year tree trimming contract with Asplundh and Davey that expired in 2006 as well as the new tree trimming contract that was signed in August of 2006 and all the work related to these two contracts including any AE records related to tree trimming activity.

### **Methodology**

In order to perform our audit work, we used various methods, including:

- Examining contracts and work records to determine whether tree trimming work was performed in accordance with contract terms as well as the federal, state, and local rules and regulations.
- Performing data reliability testing to determine if the tree trimming data is valid, reliable, and accurate by analyzing a random sample of timesheets and work reports for a two week period to match tree trimming work that was reported to tree trimming work that could be observed.
- Evaluating the contract compliance group's policies and procedures for developing, monitoring, and managing contracts.
- Examining records related to program results to determine whether contractors are providing services in a way that achieves the goals of the program
- Evaluating existing performance measures with respect to relevance, usefulness, and alignment with strategic goals.
- Gathering information on other cities with municipally owned utilities to find examples of best practices in tree trimming programs.
- Interviewing AE and the tree trimming contractors' staff to gain an understanding of their roles and responsibilities.
- Observing the performance of contractors performing tree trimming work.

This audit was conducted in accordance with generally accepted government auditing standards.

## AUDIT RESULTS

AE has implemented policies and procedures to ensure compliance with federal, state, and local laws and provide guidance for the tree trimming program. AE also has controls in place to provide reasonable assurance that tree trimming work is being done to AE's satisfaction, although internal communication could be improved. However, the performance measures for the tree trimming program are not adequate to determine whether the objectives of the program are being met.

### **AE has implemented policies and procedures that provide assurance of compliance with federal, state, and local laws and provide guidance for the tree trimming program.**

AE is trimming the trees that may interfere with electrical distribution lines in compliance with the requirements of regulatory agencies. In addition, AE has incorporated controls that provide reasonable assurance that trees are protected according to the City of Austin's Protected Tree Ordinance. AE also has implemented internal policies and procedures to ensure that they are meeting the goals of the tree trimming activity.

**AE is trimming the trees that may interfere with electrical distribution lines in compliance with the requirements of regulatory agencies.** We selected and tested the reported status of work performed by tree trimming contractors over a two-week period and found no violations of federal, state, or local laws in our sample population.

The National Electrical Safety Code requires that "trees that interfere with ungrounded supply conductors should be trimmed or removed." Although the Safety Code is a voluntary standard, the State of Texas has adopted it as a requirement. Between the years 2002 and 2006, AE reported that they have trimmed or pruned the trees to clear 1,757 miles of the 2,345 miles of distribution lines in the AE service area. AE prioritized the worst performing circuits in AE's service territory to be cleared first.

We verified that AE's field supervisory personnel are certified arborists. We also found that training on regulatory procedures has been provided to the contractors. AE requires that all tree trimming crews perform safety training as well. These voluntary actions are in compliance with self-imposed rules to safely guide tree trimming work.

**AE has incorporated controls that provide reasonable assurance that trees are protected according to the City of Austin's Protected Tree Ordinance.** AE line clearance supervisors identify trees that may be covered by the ordinance when they are developing the Vegetation Work Plan (VWP). The VWP is a description of the tree trimming work that needs to be done on each property. AE requires the contractors to comply with the ordinance and monitors them to make sure they do. We observed evidence that tree trimming contractors did mark the trees that were thought to be protected by the Ordinance and asked for a ruling from an AE forester before they did any trimming work.

The City of Austin has commissioned a tree Regrowth Study as a result of recommendations from the Tree Task Force of 2006 to help develop new policies to guide future tree trimming activities. The Regrowth Study will examine the characteristics of trees in the City in order to recommend the trimming clearance specifications and other possible changes in field operations. Results of the study are to be reported to Council and the Tree Task Force when completed.

**AE has implemented internal policies and procedures to ensure that they are meeting the goals of the tree trimming activity.** AE has documented policies and procedures for the tree trimming activity and has controls to ensure that they are followed. These policies and procedures are embedded in the tree trimming contracts and help to maintain certain levels of work quality. They address issues such as customer notification, customer resolution, invoicing, and the line clearance performance evaluation criteria. AE has also developed a prioritization methodology that allows them to trim the most problematic areas first then move around the service area according to system needs and seasonal restrictions.

For customer notification, AE policy requires the VWPs to be signed by the property owner and reviewed by AE Inspectors for contract compliance. AE has customer resolution process guidelines in place for customers that may have concerns about the work to be done on their properties. AE has in place a vendor evaluation matrix/check list that specifies the areas where the contractor's work is graded and the scoring system. The check list is completed and signed by the AE field inspector. This grading system provides assurance of the vendor's quality of work. Through our sampling methodology, we verified the proper signatures on the timesheets and the VWPs. The invoices are reviewed and signed by the contractors, the AE field inspector, and the project coordinator before the vendor is paid.

**AE has controls in place to provide reasonable assurance that tree trimming work is being done to AE's satisfaction, although internal communication could be improved.**

AE has a sound process for the monitoring of tree trimming contracts and is following them. In addition, AE has a strong system of operational controls to ensure that the contractors are doing the work that they are reporting. Our test of supporting documentation for a recent period of work showed the data was accurate and reliable. AE also has adequate controls to ensure the work that is accounted for by the tree trimming contractors is correct before authorizing payments. However, while communication between tree trimming program managers and outside contractors is good, communication between AE contract compliance and line clearance personnel does not occur on a regular basis.

**AE has a sound process for the monitoring of tree trimming contracts and is following them.** AE performs quality assurance tasks during the negotiation and execution of contracts. Contract management work is performed according to the contract monitoring process guidelines that were developed internally by AE that parallel

the best practices described by the Project Management Institute (PMI). PMI is a leading professional organization in the area of project management.

The Contract Compliance Group is responsible for providing contract oversight and help during the bidding process. They ensure that the contract language specifies the work that is desired by the project manager and make alterations to the contract as needed. They also sign off on invoices to ensure that they are accurate and complete.

The Project Coordinator is performing all of the steps of the contract monitoring process guidelines. The duties of the Project Coordinator responsible for the tree trimming contracts are to communicate project information, assist the project manager, assist with the development and implementation of the contract, ensure compliance with city and regulations, coordinate and evaluate plans and criteria, develop policies and procedures as a team member of an established process improvement team, and assist with resolutions and conflicts.

**AE has a strong system of operational controls to ensure that the contractors are doing the work that they are reporting.** AE provides direct field planning support and supervision by trained personnel. AE personnel plan and map out the tree trimming work that is to be done by contractors, supervise the work while it is being done, and verify the work for completeness and quality after it is done.

All of AE's field inspection personnel are trained and certified arborists. They ensure that the work is done to their satisfaction in accordance with industry standards developed by the International Society of Arboriculture as described in *Best Management Practices: Utility Pruning of Trees*.

AE tree trimming field supervisory personnel perform a variety of tasks to ensure quality control. They first map out the areas in which the tree trimming work is to be performed. Then the contractors flag or stake out the trees that are to be trimmed while filling out the Vegetation Work Plan. AE supervisors monitor the notification process performed by contractors and speak to customers that have questions about the tree trimming work. Lastly, AE supervisors are required to sign off on any work that is done by the contractors. Inspectors routinely send contractors back to redo any work that is below their standards for quality.

For the two-week period sampled, we confirmed that tree trimming work performed by both contractors was verified by an AE inspector for accuracy and completeness. While we did find some timesheets that reported work that we could not confirm, AE personnel were able to explain that these timesheets corresponded to workers standing by to be dispatched prior to or during a storm.

AE inspectors also sign off on the timesheets that are submitted by tree trimming contractors. They verify that the workers were present and working on the project that corresponds to the timesheet. Then they submit the timesheets to AE for verification and final payment.

**Our test of supporting documentation for a recent period of work showed the data was accurate and reliable.** We tested the reliability of the reporting data by sampling the timesheets from all the work done over a two-week period. These timesheets detail all the work done by a particular individual or crew in a given week. The timesheets are tied to the VWP by a work order or project number.

The Line Clearance Group is responsible for quality control for the actual tree trimming work. They use the VWPs as a tool to monitor the work. AE line clearance inspectors verify the tree trimming work that is completed and the hours that were worked by the contractors. The VWPs show details for every address in which tree trimming was done or where pre-planning was performed. These details include the address, a description of the trees to be trimmed, any obstacles that may require special equipment for the contractor to use, the signature of the property owner if they were available, and the signature of the AE field inspector who reviewed the quality of the work that was done.

In addition, contractors fill out a standardized reporting form that tracks the number of VWPs completed, the area of town in which the work was done, the date of completion, and other details about the tree trimming work. They present this information at weekly, monthly, and quarterly meetings with AE staff.

**AE has adequate controls to ensure the work that is accounted for by the tree trimming contractors is correct before authorizing payment.** AE has a system with sufficient controls to provide confirmation that work has been completed before authorizing payment to contractors and to confirm that payment amounts are correct. This system allows for the segregation of duties to increase the reliability of controls. The Contract Compliance Group authorizes payment and signs off after the Line Clearance Group verifies that work was completed and hours were worked as noted above.

In addition, the contractor submits the labor hours and equipment hours for entry into the Contractor Invoicing System. AE verifies that the labor and equipment hours were inputted correctly and notifies the Contract Compliance Group that the information is correct. The Project Coordinator relies upon the information in the Contractor Invoicing System which is verified by the AE's Utility Forester and AE's Field Inspectors. The Project Coordinator then processes the batch of invoices by verifying them for accuracy of the invoices and sending them to the accounts payable department for payment.

**Communication between tree trimming program managers and outside contractors is good, but communication between AE contract compliance and line clearance personnel does not occur on a regular basis.** AE effectively communicates changes in contract requirements to the contractors. Whenever AE determines that the contract should be updated, the change is submitted to purchasing and put in writing for all parties to sign. AE maintains an electronic mail record of changes to the contract language including the implementation of certain best practices learned from one contractor that is passed on to the other. Also, when AE learned of recommendations made by the Tree Task Force, they immediately communicated them to contractors and changed the tree trimming work procedures.

However, communication between the contract compliance and line clearance personnel does not occur on a regular basis. Contract compliance personnel and line clearance personnel should meet on a regular basis because the two groups have overlapping responsibilities that require regular communication. These include coordinating projects by developing and evaluating work plans, communicating procedures and assisting in resolution of conflicts. However, interaction between these two groups is currently limited to contract planning, timesheet reporting, and intervention during customer and subcontractor complaints.

01. AE's Director of System Operations and Reliability Forestry should formalize communication by implementing a reporting system with regularly scheduled meetings between contract compliance and line clearance personnel to discuss procedural issues.

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**MANAGEMENT RESPONSE:** CONCUR. Contract Management personnel will attend weekly meetings held with the tree trimming contractors and AE operations staff. Minutes and action items will be documented.

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**The performance measures for the tree trimming program are not adequate to determine whether the objectives of the program are being met.**

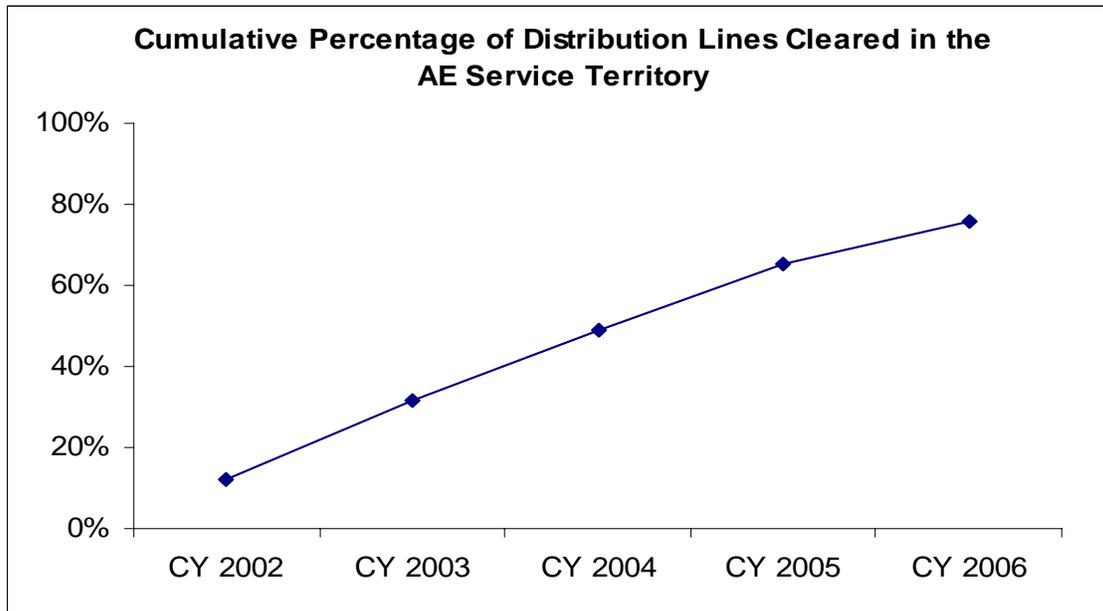
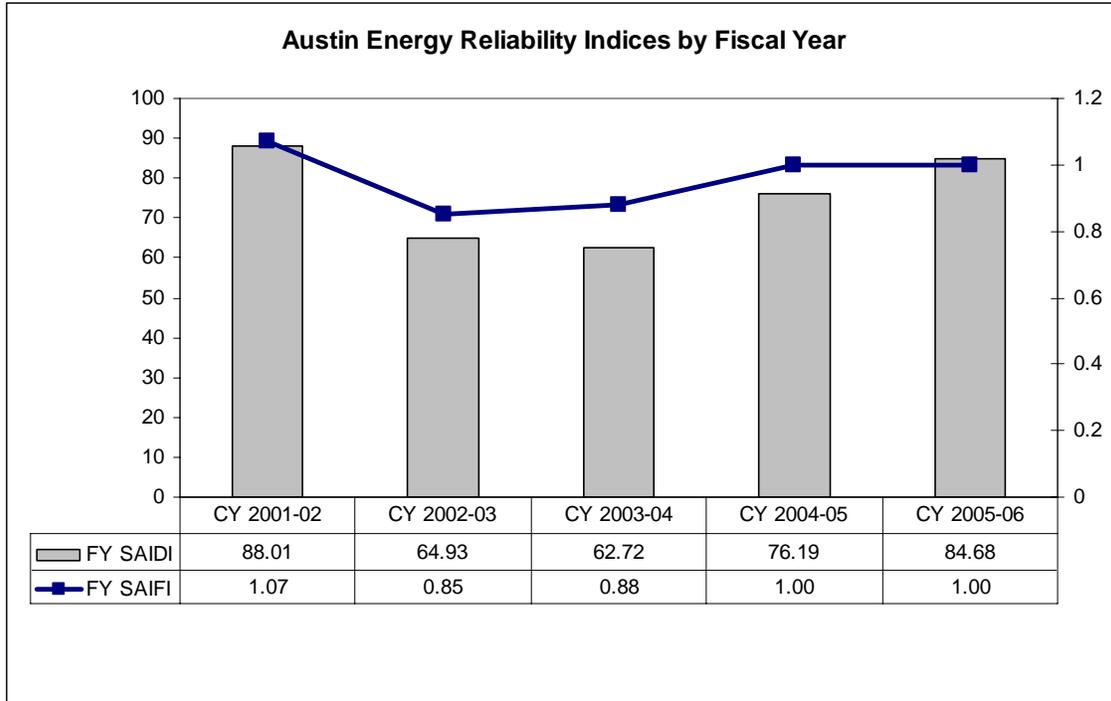
The current set of reliability indices that serve as indirect measures for the tree trimming program are not adequate by themselves as performance measures. There are also no formal performance measures or goals for cost effectiveness in the tree trimming program. In addition, AE has temporarily suspended the benchmarking system it used to hold contractors accountable, and has not directly surveyed residential customers related to customer satisfaction with the program.

**The reliability indices that currently serve as indirect measures for the tree trimming program are not adequate by themselves as performance measures.** AE needs additional measures to assess the effectiveness of the tree trimming program and determine the optimal level of expenditures for the activity. There are factors independent of the tree trimming program that affect the reliability indices AE currently use as measures.

The system reliability indices that AE currently uses measure the frequency and duration of outages. AE calculated that outages have decreased by more than 60 percent in neighborhoods where trimming has occurred. However, the reliability indices have not shown continuous improvement as AE has been closing in on clearing the lines for 100 percent of its service territory. (See Exhibit 1 on the following page) This shows that there are other factors such as animals, weather, and unknown causes affecting the reliability indices independent of the tree trimming program.

## EXHIBIT 1 Reliability Indices Have Not Shown Continuous Improvement as AE Approaches 100 Percent of Service Territory Cleared

System Average Interruption Duration Index (SAIDI) measures the average duration of outages when they occur. System Average Interruption Frequency Index (SAIFI) measures the average number of outages that occur in a given year. Higher SAIDI numbers represent outages of a longer average duration and higher SAIFI numbers represent more frequent interruptions in electrical service.



SOURCE: Unaudited AE data confirmed by OCA.

**There are no formal performance measures or goals for cost effectiveness in the tree trimming program.** AE is calculating the costs per mile for each of its vendors but they are not comparing costs against industry standards or other validated standards or goals to determine if the costs are reasonable. AE uses cost information to award more work to the vendor with the lowest cost per mile trimmed. However, without comparing the cost per mile against an industry standard and formally reporting it, AE cannot be sure either vendor is working efficiently.

AE awarded contracts to the top two eligible bidders during the vendor selection process despite the fact that one vendor bid was lowest. AE awards more tree trimming work to whichever contractor performs more efficiently. Program managers determine which contractor performs work more efficiently by analyzing the total costs per mile of line cleared.

AE concluded that there was a net financial benefit to having two contractors competing for tree trimming work. AE also determined it would be more beneficial to have two companies providing tree trimming crews in the event of a major disaster because more crews would be available to help restore service. Historically, AE has been able to dispatch several crews and call upon other utilities to render aid under the clauses of several mutual assistance agreements. However, AE was willing to pay a premium in order to have two separate contractors available in addition to those that might come available as a result of mutual assistance agreements.

Although AE may be getting a better value for their money by awarding two contracts, the current set of performance measures does not allow us to draw this conclusion. The total authorization amount for the contract that expired in 2006 was \$45 million and the current contract authorization is \$60 million. Awarding two contracts does not appear to have lowered the overall price. AE reported that the reason for the contract price increase was because of wage increases associated with living wage adjustments and fuel costs.

**AE has temporarily suspended the benchmarking system it previously used to hold tree trimming contractors accountable.** We did not find adequate assurance that tree trimming costs were being minimized under the current system because it only provides a not-to-exceed limit instead of performance targets. The benchmarking system previously used provided a system of incentives and disincentives that rewarded good performance.

Under the benchmarking system, each project's budget was derived by multiplying the average tree trimming cost per linear foot by the total number of linear feet of line that needed to be cleared. If a contractor's costs went above that budget, they paid the utility a percentage of the total costs as a penalty. If the contractor was under the budget, they were awarded an incentive. As a result of the benchmarking program, contractors repaid AE almost \$600,000. See Appendix B for an explanation of the incentive or disincentive methodology.

The benchmarking system was put on hold after the Tree Task Force recommended that AE change their operational guidelines in 2006. AE program managers stated their intent to reinstate the benchmarking system when the Task Force returns with their report. Currently, AE derives a quarterly not-to-exceed limit representing the total budgeted contract award for the year divided by four. There is no incentive or penalty payment related to this method.

**AE has not directly surveyed residential customers on the tree trimming program so customer satisfaction data may not be reliable.** AE has not contacted its residential customers to ask them about the tree trimming program. The current residential customer satisfaction data is based on the American Customer Satisfaction Index (ACSI). The ACSI data is taken from a national survey of consumers who rate their satisfaction with a number of products. It is not specific to tree trimming.

AE's marketing group has drafted a new survey that they intend to start using in the fall of 2007 to contact customers who have had their trees trimmed recently. This survey work will be done by an outside contractor, but AE is still developing the survey questions.

### **Recommendation**

02. AE's Director of System Operations and Reliability should develop performance measures that provide information on improvement to system reliability, cost effectiveness, and customer satisfaction and use these measures to hold contractors accountable.

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**MANAGEMENT RESPONSE:** CONCUR. For system reliability performance measures, AE will develop and implement a tree-caused outage analysis process to measure the effectiveness of the tree trimming program. This process will be used to track SAIDI/SAIFI on completed circuits over a cycle period and changes may be made to the line clearance program to maximize the efficacy of the tree work with regards to reliability and safety.

For cost effectiveness performance measures, AE will implement a cost efficiency tracking process that evaluates the efficacy of the two contractors. The data will be used to identify areas of concern and actions may be taken to improve both production and costs.

For customer satisfaction performance measures, AE has developed a customer satisfaction survey that is being conducted by a third party vendor. The findings will be incorporated into benchmark evaluations with the tree trimming contractors.

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**APPENDIX A**  
**MANAGEMENT RESPONSE**



**ACTION PLAN**  
**AE Contracts: Tree Trimming Audit**

<b>Rec #</b>	<b>Recommendation Text</b>	<b>Concurrence</b>	<b>Proposed Strategies for Implementation</b>	<b>Status of Strategies</b>	<b>Responsible Person/ Phone Number</b>	<b>Proposed Implementation Date</b>
01	AE's Director of System Operations and Reliability should formalize communication by implementing a reporting system with regularly scheduled meetings between operations and contract management personnel to discuss procedural issues.	Concur	Contract Management personnel will attend weekly meetings held with the tree trimming contractors and AE Operations staff. Minutes and action items will be documented.	Implemented	Ray Henning 322-6932 (Line Clearance Superintendent)  Steve Brand 322-6190 (Project Coordinator)	September 2007
02	AE's Director of System Operations and Reliability should develop performance measures that provide information on improvement to (a) system reliability, (b) cost effectiveness, and (c) customers satisfaction and use these measures to hold contractors accountable.	Concur	(a) <b>System Reliability</b>  Austin Energy (AE) will develop and implement a tree-caused outage analysis process to measure the effectiveness of the line clearance maintenance program. This process will be used to track the SAIF/SAIDI on completed circuits over a cycle period and changes may be made to the line clearance program to maximize the efficacy of the tree work with regards to reliability and safety.	Underway	Ray Henning 322-6930 (Line Clearance Superintendent)  Donna Browning 322-6688 (Engineer Associate B)	October 2007 – initial measurements and data input defined  April 2008 – Process implemented and benchmarks will be established for the line clearance program

Rec #	Recommendation Text	Concurrence	Proposed Strategies for Implementation	Status of Strategies	Responsible Person/ Phone Number	Proposed Implementation Date
			<p><b>(b) Cost Effectiveness</b></p> <p>AE will implement a cost efficiency tracking process that evaluates the efficacy of the two contractors. The data will be used to identify areas of concern and actions may be taken to improve both production and costs.</p>	Underway	<p>Ray Henning 322-6930 (Line Clearance Superintendent)</p> <p>Steve Brand 322-6190 (Project Coordinator)</p> <p>Michelle McAfee 322-6932 (Utility Forester)</p>	<p>November 2007 – initial measurements will be defined and preliminary reports will be added to Electric Service Delivery monthly report.</p> <p>December 2007 – Formal reporting mechanism will be established and information reviewed in weekly Contractor meetings.</p>
			<p><b>(c) Customer Satisfaction</b></p> <p>Austin Energy has developed a customer satisfaction survey that is being conducted by a third party vendor. The findings will be incorporated into benchmark evaluations with the tree trimming contractors.</p>	Underway	<p>Ray Henning 322-6930 (Line Clearance Superintendent)</p> <p>Frank DiSiena 322-6343 (Market Research Analyst)</p> <p>Elizabeth Jambor 322-6353 (Product Development Coordinator)</p>	<p>September 2007 - Initial Survey Implemented</p> <p>August 2008 – Benchmarks will be established and implemented</p>

Concurrence: concur, partially concur, or disagree.  
Status of strategies: planned, underway, or implemented.

  
Department Director

10/19/07  
Date

## APPENDIX B

### Calculating Incentives/Disincentives through the Benchmarking Program

How to calculate the disincentives:

Actual Project Costs - Benchmark Project Costs = Total Costs Overrun

Benchmarking Project costs x .10 = AE Costs Overrun Paid

Total Costs Overrun – AE Costs Overrun Paid = Cost Overrun

Scenario 1- If ½ of the costs overrun above 10% and the performance score is 100-90%, then half will be paid.

Scenario 2- If 2/3 of the costs overrun above 10% and performance score is 89-80%, then 2/3 of the disincentive will be earned.

Scenario 3- If all costs overrun in excess of 10% and the performance is 79% or below, then full disincentive will be earned.

How to calculate the incentives:

Benchmarking Costs – Actual Project Costs = Total Savings

Benchmarking Costs x .10 = AE Savings

Total Savings – AE Savings = Savings over 10%

Scenario 1- If ½ of the savings is above 10% and performance score is 100-90%, then the full incentive is earned.

Scenario 2- If ¼ of the savings is above 10% and performance score is 89-80%, then ½ of the incentive is earned.

Scenario 3- If the evaluation is 79% or below, then no incentive is earned.

SOURCE: Austin Energy Tree Trimming Contracts. Benchmarking program discontinued in 2006.

