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Mr. Jim Welch Director of Engineering Kentucky Public Service Commission 211 Sower Boulevard Frankfort, Kentucky 40602-0615



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PUBLIC SERVICE COMMISSION

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December 19, 2007

#### RE: <u>An Investigation of the Reliability Measures of Kentucky's</u> <u>Jurisdictional Electric Distribution Utilities and Certain Reliability</u> <u>Maintenance Practices</u>- Administrative Case 2006-00494

Dear Mr. Welch:

Enclosed please find Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company's ("KU") Vegetation Management Plan pursuant to the Commission's Order dated October 26, 2007 in the above mentioned matter.

Should you have any questions concerning the enclosed, please do not hesitate to contact me.

Sincerely,

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Rick E. Lovekamp

# Louisville Gas and Electric Company and Kentucky Utilities Company

**Distribution Vegetation Management Plan** 

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# Introduction

The Distribution Vegetation Management Program encompasses right of way maintenance for Louisville Gas and Electric Company and Kentucky Utilities Company (referred to as the "Companies"). The program is centralized and managed by a Forestry Manager and nine company Utility Arborists. All are certified arborists by the International Society of Arboriculture. The Companies employ five professional tree contractor companies (Asplundh, Nelson, Phillips, Townsend and Wright). Utility line clearing is undertaken to maintain safety, reliability of service, and access to the utility's facilities for maintenance and repair.

# Safety

The Companies primary focus and core value is to ensure the health and safety of our employees, business partners, and the public. The policies, procedures, and goals contained in the Companies' *No Compromise Plan* support our current operating and safety commitments. Contractors shall regard safety as their first priority. Contractors and their employees will recognize and follow all laws, rules and regulations regarding public and worker safety. Any incident must be reported to the appropriate safety per OSHA and Company standards. Every new contract employee must complete a safety training program in the first 30 days. Safety performance is also included in the contractor evaluation.

# **Right of Way Maintenance Strategy**

The Companies employ an Integrated Vegetation Management Program (IVM) that is the process of using chemical, manual, or mechanical techniques to control undesirable vegetation and includes natural or directional pruning, environmentally safe herbicides, and tree removals. The program includes flexibility to operate and maintain variable easement widths, differences between rural and urban service areas, applicable codes or ordinances, and the need to maintain some level of flexibility in addressing landowner requests or concerns. Schedules and priorities for tree trimming are based on vegetation growth, cycle-last trim date, reliability data, and visual inspections. Reliability centered maintenance concepts are also employed in establishing tree trimming priorities.

The plan includes the application of a flexible multi-cycle strategy to address growth and tree density which will vary across the service area. The Companies' plan is to maintain a proactive trim cycle while balancing the reactive needs of worst performing circuits. The Companies' goal is to maintain an average trim cycle of five years or less.

All tree trimming shall be governed by approved principles of modern arboriculture and shall adhere to International Society of Arboriculture (ISA) standards. Other standards utilized in the program include ANSI A300, NESC, and OSHA 1910.269 as well as compliance with tree ordinances and local codes.

#### **Reliability Criteria and Reports**

The reliability criteria used to develop the vegetation management plan are system SAIDI, SAIFI, and CAIDI. System performance targets are established annually. Reports used to develop the plan include the Worst Performing Circuit Report and Circuit SAIDI, SAIFI, and CAIDI Reports.

The Annual Reliability Report will include the Worst Performing Circuits and how well the Companies implemented its vegetation plan as well as changes to the plan in the coming year.

#### Work Plan

Work plans are prepared annually by circuit based on vegetation growth, cycle-last trim date, reliability data, and visual inspections by arborists who develop work plans to target trees that need to be trimmed or removed as well as the flexibility to prescribe a different trim cycle by circuit that addresses growth and tree density for that circuit. A mid-cycle "touch up" is used as needed based on field inspections for multi-phase lines. The vegetation plan strategy will balance the routine trimming plan to maintain an average trim cycle with the reliability centered maintenance plan to address the worst performing circuits. The top 10 worst performing circuits are identified by each reliability index. These circuits are evaluated to determine root cause of the outages. If the root cause is tree related, the arborist will visually inspect the circuit to determine the appropriate plan of action.

The Work Plan includes the following sections:

#### Routine Trimming Cycle Plan

The routine trimming cycle plan is a proactive plan to trim circuits based on the date last trimmed.

#### Mid-Cycle Touch Up Plan

The mid-cycle touch up plan focuses on specific fast growing and hazard trees on multi-phase lines.

<u>Herbicide Treatment Plan</u> The herbicide plan is a proactive plan to control brush and immature trees.

#### Worst Performing Circuits Plan

The worst performing circuit plan is a reactive plan that has identified trees as the root cause of poor performance and is recommended by the arborist after inspection to be included in the tree work plan.

### **Evaluation of Plan Effectiveness**

The effectiveness of the plan is evaluated by the cycle, system performance as measured by system SAIDI, SAIFI and CAIDI, and customer feedback as measured by satisfaction surveys. Reports used to monitor the plan effectiveness include the Circuit Reliability Report, System SAIDI, SAIFI, and CAIDI Reports, and Customer Satisfaction Surveys.

# **Customer Communication**

Each customer on the circuit receives a mailing notification letter, one to two weeks prior to beginning the circuit work. The crew "knocks on the door" before the work begins. Customer complaints are investigated. Customer satisfaction is included in the contractor evaluation. Customer education about tree trimming and planting trees is provided in consumer mail inserts, participation in community events, and media announcements.

### **Contractor Performance Management**

The vegetation management strategy includes target pricing and firm bid work. Target pricing promotes efficiency in contractor resource management. The target price strategy deploys prescriptive tree management techniques. All trees and brush are planned, counted, and marked on a circuit map, span by span. Contractor work is prescribed and a target price is established for the work. Every circuit is inspected after the tree work is complete. Approximately 8 to 10 percent of the tree work is bid on a firm basis to validate target pricing and encourage contractor competition.

Contractor's performance is evaluated based on safety, productivity, quality, and customer satisfaction on a quarterly and annual basis. Contractors are held accountable for safety per OSHA and Company standards.