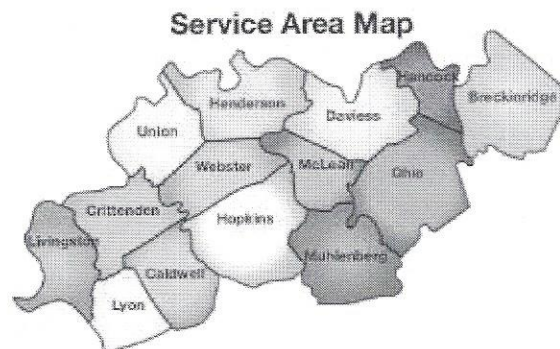


# Kenergy Vegetation Management Plan

## Introduction

Kenergy, a customer-owned electric distribution cooperative, serves in excess of 58,700 households, commercial enterprises and industries along more than 5,200 miles of overhead primary line in all or portions of 14 western Kentucky counties. They include Breckinridge, Caldwell, Crittenden, Daviess, Hancock, Henderson, Hopkins, Livingston, Lyon, McLean, Muhlenberg, Ohio, Union and Webster.



Trees and brush are often the leading cause of service interruptions for electric utilities. Likewise, vegetation management expenses are typically among the largest for any utility. This document is intended to be used as a guide for vegetation management control on Kenergy's electric distribution system.

## Purpose

Kenergy's vegetation management program, consisting of mechanical pruning and herbicide application, exists to support the effective and efficient delivery of electricity to our customers. To accomplish this goal, the VM program has two primary objectives:

- 1) Contribute to improved system reliability.
- 2) Create conditions that result in safer working conditions for Kenergy's personnel and enhanced public safety.

Kenergy emphasizes removal, rather than pruning, of trees directly under and near the power lines.

### **Scope of Work**

Kenergy's vegetation management program consists of pruning, cutting, bush hogging and herbicide application, as described below:

- a. Routine Circuit Maintenance - Vegetation management control activities performed on an entire circuit.
- b. Job Orders - Vegetation management control activities performed on a specific portion of a circuit identified by Kenergy through a Kenergy generated Job Order.
- c. Work Orders - Vegetation management control activities performed on a specific portion of a circuit identified by Kenergy through a Kenergy generated Work Order.
- d. Herbicide Application – Appropriate herbicide will be applied to Kenergy's rights-of-way in a professionally responsible manner as a means to control unwanted brush and other appropriate vegetation.

Kenergy will use all available resources to determine the annual vegetation management scope of work, particularly those circuits on which routine circuit maintenance will be performed, including, but not limited to the following:

- i. Outage statistics
- ii. Knowledge and recommendations of Kenergy personnel, including District Managers, Line Technicians, Vegetation Management Coordinators, etc.
- iii. Customer input

## Specifications

### Pruning Specifications:

- Primary: All multi-phase conductors:
  - 20 feet overhead clearance
  - 20 feet side clearance
  - 14 feet under phase clearance
  
- Primary: All single-phase conductors:
  - 20 feet overhead
  - 10 feet side clearance
  - 14 feet under phase clearance
  
- Secondary: All open wire conductors:
  - 10 feet overhead
  - 10 feet of side clearance
  - 10 feet under phase clearance
  
- Service Line: All service line conductors:
  - All vegetation conditions that pose an immediate safety and/or reliability threat shall be eliminated

**All clearances are minimum distances; proper pruning techniques may require greater clearances.**

From time to time, limited exceptions will be made to these specifications based upon the species and location of the tree/vegetation. On these occasions, clearance shall never be less than six (6) feet from the outside conductor.

Strategic Tree Removal: All undesirable trees and brush that are not suitable for herbicide application will be removed. This includes all trees located within 10 feet of either side of the outside phase.

Permission will be obtained from customers for removals. All trees removed must be stump treated with appropriate herbicide application.

Herbicide Application: All undesirable trees and brush less than 10 feet in height that are located within 20 feet of either side of the multi-phase pole centerline and within 10 feet of either side of the single-phase pole centerline will be treated with an appropriate herbicide.

The stumps of trees removed shall be treated with a herbicide to prevent re-sprouting.

Hazardous Tree Removal: All hazardous trees that pose a high degree of reliability risk to single-phase and multi-phase conductors will be identified and removed as appropriate. A hazardous tree will be defined as any tree that possesses imminent risk of falling onto any primary conductors.

### **Proper Pruning Techniques**

Directional pruning techniques are used on Kenergy's system. Pruning activities are based on accepted arboricultural standards, including ANSI A300 – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning), International Society of Arboriculture Best Management Practices, Utility Pruning of Trees – Special Companion Publication to the ANSI A300 Standard and Pruning Trees Near Electric Utility Lines, A Field Pocket Guide For Qualified Line-Clearance Tree Workers by Dr. Alex Shigo.

Rounding of trees and has been determined to be an ineffective and improper pruning technique. These pruning methods will not be used on Kenergy's system.

### **Maintenance Cycles**

It is Kenergy's intention to perform vegetation management control activities on a cycle that does not exceed six (6) years.

### **Use of Herbicide**

Herbicide is widely recognized as a valuable tool to control woody brush in rights-of-way. Kenergy's practice is to apply herbicide on rights-of-way in the year following mechanical clearing, provided, however, that at least one growing cycle has elapsed.

### **Tree-A-Tree**

Kenergy maintains a program titled Trade-A-Tree. The program is designed to partially compensate customers for removal of trees that pose a danger to power lines. The program is used on a limited basis and when absolutely necessary. To receive compensation, the customer will be required to sign a Tree Agreement committing that they will not replant a tree within 20 feet of the power lines. The program is restricted to difficult situations in order to achieve desired program objectives.

### **Customer Education**

An important component of Kenergy's vegetation management program is to prepare and disseminate accurate and reliable information about vegetation management practices in general and Kenergy's program specifically. Information may be provided to our customers and others who may have an interest in or who are impacted by Kenergy's vegetation management program.

### **Property Owner Notification**

Kenergy's contractors are required to notify property owners before any vegetation management work commences.

### **Adherence to Regulations**

All vegetation management work involving the clearance and maintenance of Kenergy's line shall be in accordance with all federal, municipal, county, state, and other local laws, ordinances, and regulations applicable to said work.

### **Use of Contractors**

Kenergy's current practice is to only use contractors for both mechanical clearing and herbicide application.

### **Review of Plan**

It is Kenergy's intention to review this plan for adequacy and effectiveness on an as-needed basis, but no less often than annually. Effectiveness of work performed will be considered during this review process and appropriate adjustments made.