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CUMBERLAND VALLEY ELECTRIC

P.O. Box C
Cumberland, Kentucky 40823

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

December 22, 2007

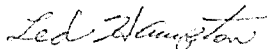
RE: Administrative Case 2006-00494 ~ *An Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities and Certain Reliability Maintenance Practices*

Dear Mr. Welch:

Enclosed please find Cumberland Valley Electric's ("CVE") Vegetation Management Plan pursuant to the Commission's Order dated October 26, 2007 in the above referenced matter.

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

Sincerely,

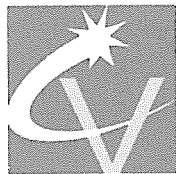


Ted Hampton
Manager

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COMMISSION

CUMBERLAND VALLEY ELECTRIC

Gray, Kentucky



Cumberland Valley
Electric, Inc. A Touchstone Energy
Cooperative 

Vegetation Management Plan

Case No. 2006-00494

November 26, 2007



Patterson & Dewar
Engineers, Inc.

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CUMBERLAND VALLEY ELECTRIC VEGETATION MANAGEMENT PLAN

1.0 Introduction

Vegetation Management ("VM") is a critical component of distribution reliability as well as a major expense in maintaining Cumberland Valley Electric's ("CVE") facilities. The Kentucky Public Service Commission ("PSC") conducted an exhaustive review (Case 2006-00494) of all regulated electric distribution entities in the Commonwealth and concluded that possible VM program enhancements could benefit the electric consuming citizens. As a first step in this process it was ordered that those specified entities develop, place in writing and deliver to Commission staff a company specific VM Plan. Said plan is to be adhered to by CVE, as well as CVE contractor, personnel.

CVE provides electric service to the southeastern portion of Kentucky¹. The service area generally encompasses the rural county-side and small towns in the area. CVE provides electric service via 2,500+ miles² of 12.47kV and 25kV distribution lines to some or all of the homes, farms, small commercial and industrial consumers in Bell, Harlan, Knox Laurel, Leslie, Letcher, McCreary and Whitley Counties in Kentucky, as well as Claybourne County Tennessee. CVE also provides service to portions of unincorporated areas as well as portions of the incorporated towns of Corbin, Cumberland, Barbourville and Williamsburg. Corbin and Barbourville are primarily served by their respective municipal utility. The terrain varies from rolling hills with grazing lands along small streams and tributaries to rugged mountainous forest in the eastern portion of the service area.

2.0 Safety

For decades, trees and power lines have shared the same space. Unfortunately, trees that grow near power lines can be dangerous and cause power outages. Trees are involved in approximately 30 percent of all power outages nationally.

Right of way clearing is an important part of CVE's goal of delivering safe, reliable, cost-effective electric service. Trees and branches that grow into the power lines can cause outages and system disturbances especially when we have wet snow, ice or severe wind conditions. Tree and brush clearing can help reduce the number and length of outages. By keeping the brush and shrubbery out of the right of way, emergency repairs can be completed safer and the length of outages reduced. In order to maintain an adequate level of reliability and to ensure a high-standard of quality service to our members, CVE monitors and manages vegetation growth that may create a potential problem.

Existing overhead lines and equipment are evaluated to ensure appropriate clearances are maintained. The growth cycle of trees and brush is also

¹ Refer to Appendix A

² Refer to Appendix B

looked at; some faster-growing trees may require more clearance than others. The CVE VM crews demonstrate due diligence in removing and trimming only what is necessary. In some cases a tree may not look as though it will create a line conflict, but in the winter when loaded with snow or ice it can contact the overhead lines. Tree branches can cause blinking lights, momentary outages, or even brush fires during heavy winds when they come in contact with power lines.

3.0 Vegetation Management Policy, Supervision and Personnel

CVE's Board implemented Policy Statement 108³ titled "Vegetation Management for Aerial Power Lines". Via this Board Policy, CVE's CEO will employ a "Vegetation Manager" to supervise the VM work. Said employee shall be responsible and accountable for the VM program. In the absence of the Vegetation Manager the CEO will assume supervision as such. VM personnel may be CVE and/or contract employees.

4.0 Vegetation Management Methods

CVE employs various in-house and contract vegetation management methods. In addition to tree trimming crews, which is the most common method, CVE uses several types of large mechanical clearing equipment, as well as herbicides to control vegetation near electric lines:

4.1 Tree Trimming Crews

CVE contracts line-clearing projects to contractors who use two- or three-person crews. When a VM crew arrives at a property, they are required to follow OSHA's tree clearance regulations as well as CVE's specifications when performing their work. In yards, and other maintained areas, they usually remove or chip all brush debris. Larger wood from the line clearing will be cut into manageable pieces and left for landowner use. In areas that are not maintained, the brush will be piled in windrows along the power line right-of-way creating good habitat for animals and helping to suppress future tree growth. When trees are removed, stumps are left and cut as close to the ground as possible.

4.2 Heavy Equipment Use

The most commonly used heavy equipment is called a "bush hog." This machine is usually used in non-maintained areas, but will be employed where necessary.

³ See Appendix C

4.3 Herbicide Use

CVE's VM personnel and its contractors are trained and certified in the use of herbicides. Herbicides are used to maintain cleared rights-of-way and to treat the stumps of removed trees to prevent re-sprouting. Additionally, herbicides are used in areas with heavy brush to kill the vegetation, but leave it standing to create animal habitat and suppress future tree growth. CVE uses herbicides that bind quickly and tightly to surrounding soil to avoid leaching and run-off.

5.0 Right Of Way Clearing Standards

All aerial power line ROWs shall be trimmed, bush-hogged and/or sprayed on a four year cycle; said cycle may be shortened or lengthened depending on variables such as extreme dry or raining growing seasons. The Rural Utility Service ("RUS") drawing M1.30G "*RIGHT-OF-WAY CLEARING GUIDE*"⁴ will be followed as closely as practical for clearing and side trimming. It is recognized that some areas and situations require more frequent attention than a four year cycle will provide, such as urban areas and home owners with shade trees. These will be cleared on a spot-by-spot, as needed, basis between years of scheduled maintenance. CVE will continually monitor ongoing changes in ROW clearance "Best Practices" and requirements from IEEE, OSHA, RUS, the National Arbor Association and others. Such changes will be evaluated and may be incorporated into the CVE VM Plan as deemed appropriate. Non-cycle tree work is identified by various means such as outage/service records, consumer calls and ongoing system inspections.

6.0 Vegetation Management Program Tracking, Scheduling and Evaluation

For tracking and scheduling purposes, CVE's Vegetation Manager will maintain a digital⁵ and paper system map indicating line sections completed in each year of the current cycle. Said maps will be kept as current as is practical.

The effectiveness of the VM Plan will be evaluated on an ongoing basis. CVE's Vegetation Manager will conduct random visual inspections during his normal course of work and as circuits are cleared. All clearing jobs that are completed will be inspected prior to final payment to the respective contractor.

The PSC conducts random spot checks of right-of-way during their ongoing field inspections and the RUS General Field Representative (GFR) does similar inspections for the RUS Form 300 O&M Survey.

CVE prepares monthly outage reports; said reports will be used to monitor the effectiveness of the VM Program. CVE will begin tracking SAIDI, CAIDI, and

⁴ Refer to Appendix D

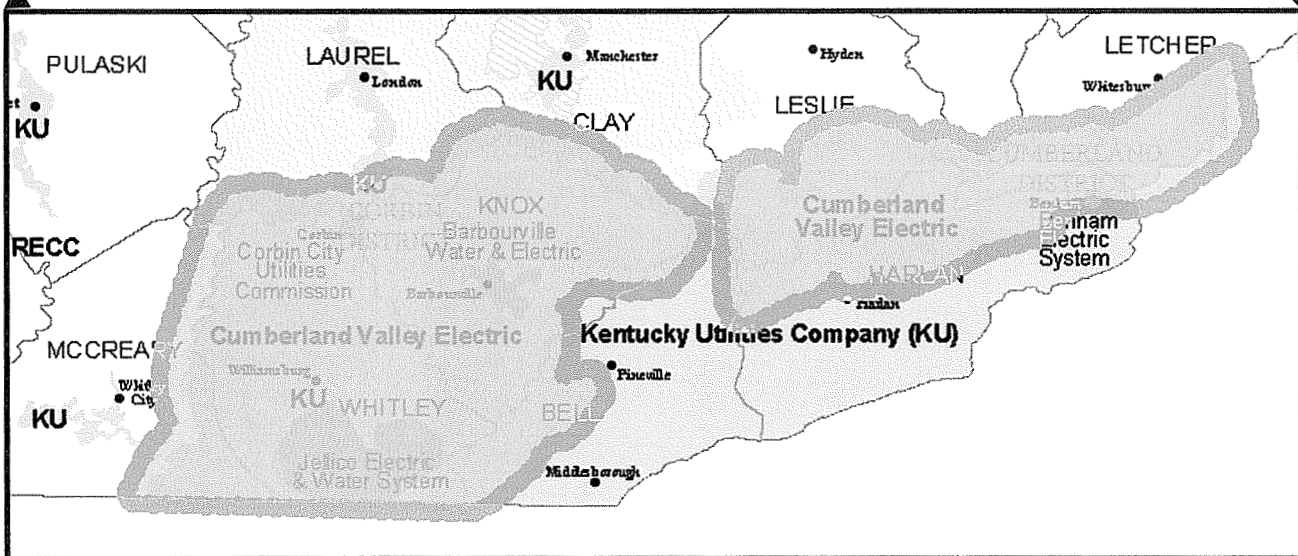
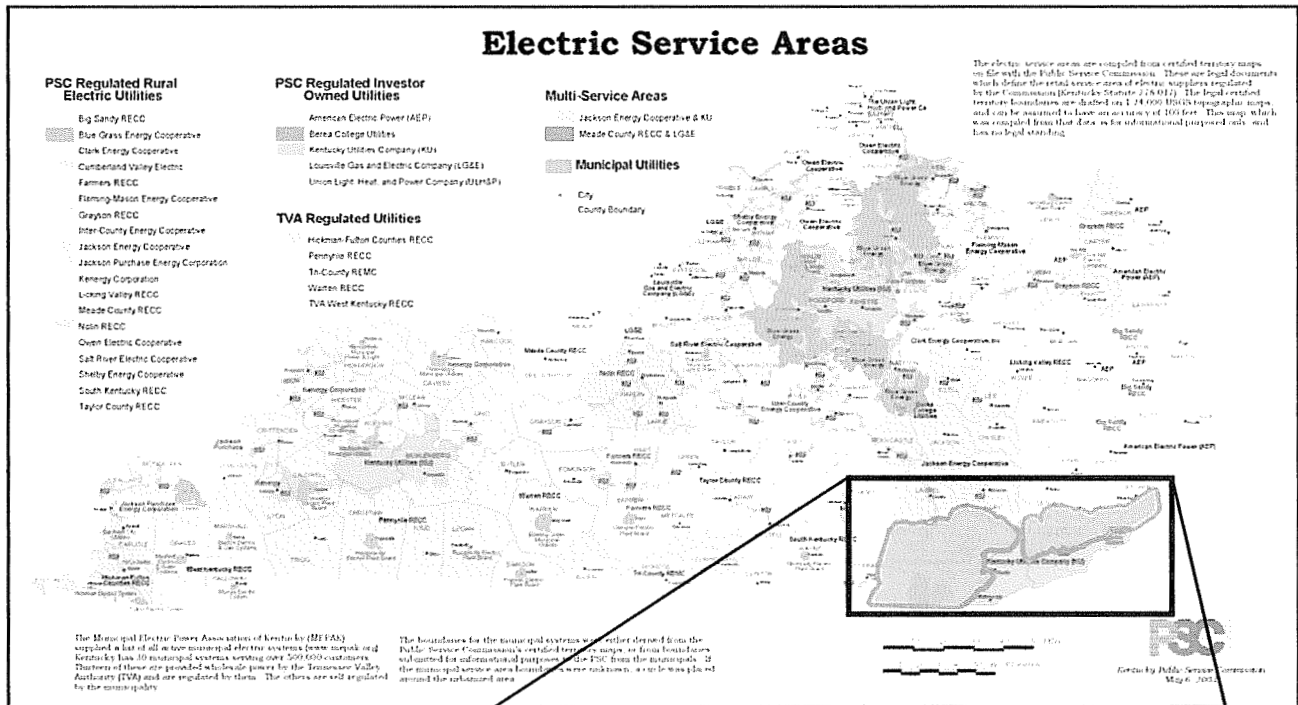
⁵ Refer to Appendix E

CUMBERLAND VALLEY ELECTRIC VEGETATION MANAGEMENT PLAN

SAIFI and develop ongoing trending of such while taking into consideration factors such as major storms. This data will be used to help evaluate both the effectiveness of the plan and any specific areas, circuits and/or substations that may require additional attention.

APPENDICIES

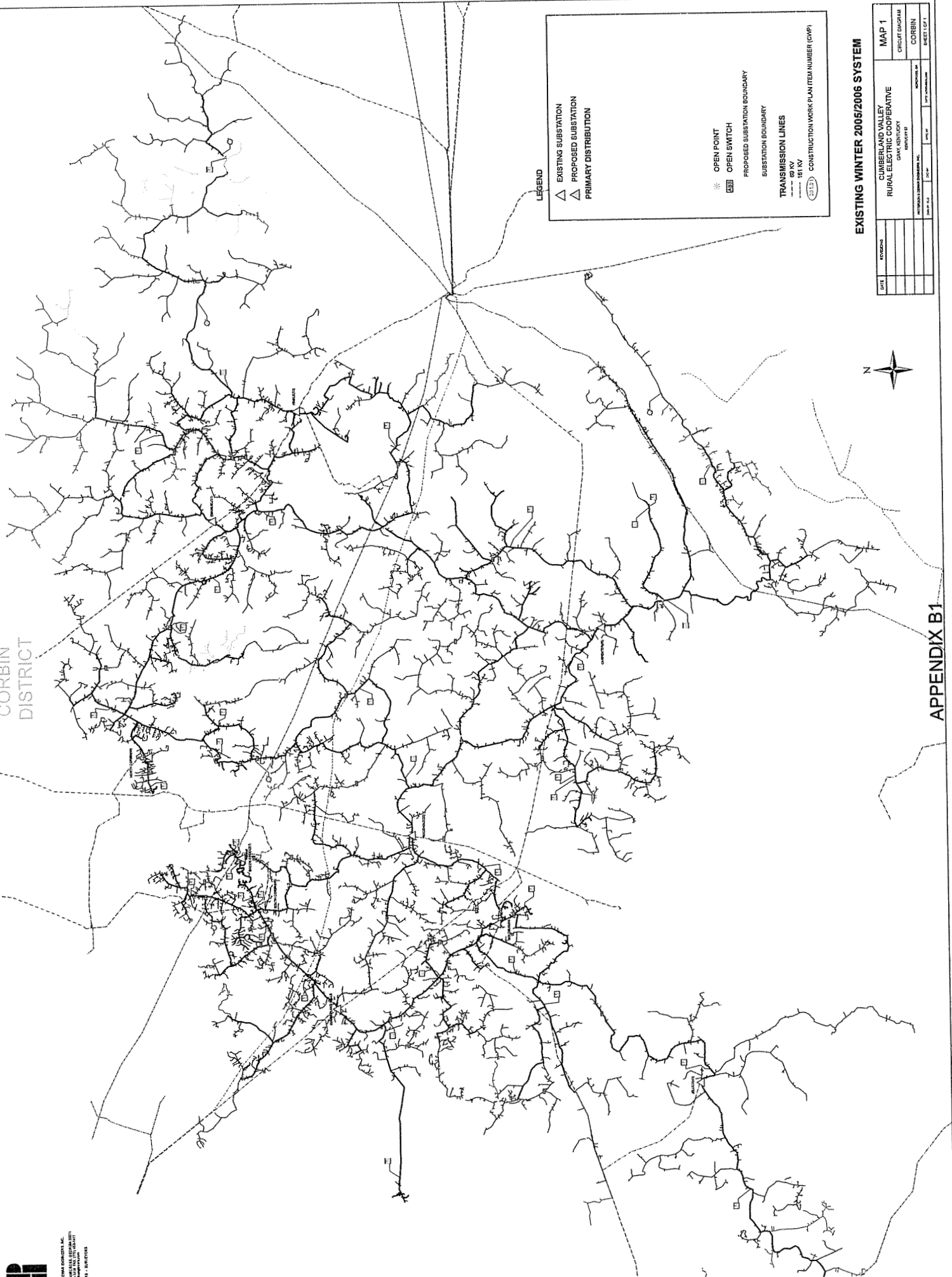
Kentucky Map With Cumberland Valley Electric Service Area Noted





CLUMBERLAND VALLEY RURAL ELECTRIC COOPERATIVE
 1000 WEST VALLEY AVENUE
 CUMBERLAND, KY 40301
 (606) 226-1100

CORBIN DISTRICT



LEGEND

- △ EXISTING SUBSTATION
- △ PROPOSED SUBSTATION
- PRIMARY DISTRIBUTION

- * OPEN POINT
- OPEN SWITCH
- PROPOSED SUBSTATION BOUNDARY
- SUBSTATION BOUNDARY

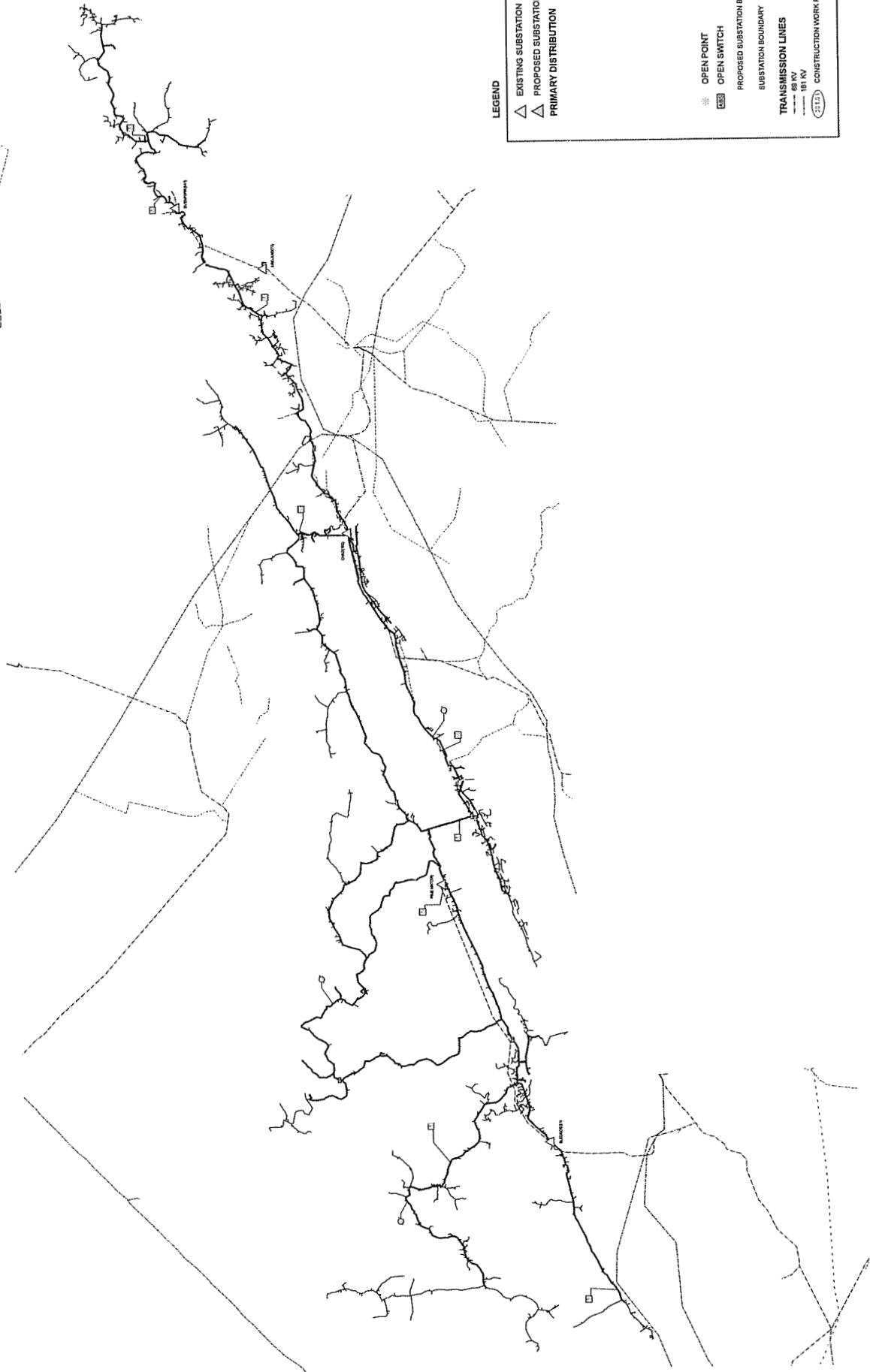
- TRANSMISSION LINES
- 181 KV
- CONSTRUCTION WORK PLAN ITEM NUMBER (CWP)

EXISTING WINTER 2006/2006 SYSTEM

DATE	REVISIONS	MAP 1
		CIRCUIT DIAGRAM
		CUMBERLAND VALLEY RURAL ELECTRIC COOPERATIVE
		CUMBERLAND, KY 40301
		PROJECT #
		DATE
		BY
		CHECKED BY
		DATE
		PROJECT #
		DATE
		BY
		CHECKED BY
		DATE

APPENDIX B1

CUMBERLAND
 DISTRICT



LEGEND
 △ EXISTING SUBSTATION
 △ PROPOSED SUBSTATION
 △ PRIMARY DISTRIBUTION

☆ OPEN POINT
 □ OPEN SWITCH
 PROPOSED SUBSTATION BOUNDARY
 SUBSTATION BOUNDARY

TRANSMISSION LINES
 ——— 69 KV
 ——— 181 KV
 (C-11.1) CONSTRUCTION WORK PLAN ITEM NUMBER (CWP)



EXISTING WINTER 2005/2006 SYSTEM

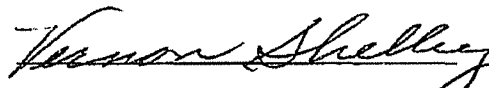
DATE	REVISIONS	CUMBERLAND VALLEY RURAL ELECTRIC COOPERATIVE	MAP 2
		GRAY, KENTUCKY	CIRCUIT DIAGRAM
		INDICATED	CUMBERLAND
		BY: [Signature]	SHEET 1 OF 1

Cumberland Valley Electric
Draft Policy

POLICY STATEMENT NO. 108

- SUBJECT: Vegetation Management Policy for Aerial Power Lines
- PURPOSE: The purpose of this policy is to provide the cooperative with a standard procedure to manage vegetation growth on aerial power line right-of-ways for maintenance of system reliability and member satisfaction.
- POLICY: This policy shall pertain to all methods of vegetation management currently in use at the cooperative and is applicable to the cooperative's entire aerial system.
1. All aerial power line right-of-ways shall be trimmed, bush-hogged, or sprayed on a four year cycle. TUS drawing M1.30G "RIGHT-OF-WAY CLEARING GUIDE" will be followed as closely as is practical for clearing and side trimming. It is recognized that some areas and situations require more frequent attention than a four year cycle will provide, such as urban areas and home owners with shade trees. These will be cleared on a spot-by-spot as needed basis between years of scheduled maintenance.
 2. PSC Case Number 2006-00494 mandates annual reporting of system reliability indices. This report is to include a listing of the cooperatives ten worst performing circuits. For each circuit so listed, the report is to identify, among other things, the major outage category contributing to the circuit's performance. The cooperative's Vegetation Manager shall review this listing to determine the extent to which vegetation contributed to the performance of each listed circuit. The Vegetation Manager shall use his discretion in determining whether additional maintenance for these circuits is warranted.
 3. For tracking and scheduling purposes, the cooperative's Vegetation Manager shall maintain a system map indicating line sections completed in each year of the current cycle. Said maps will be kept as current as is practical.
- RESPONSIBILITY: The CEO/CEO shall name a Vegetation Manager to be responsible for the administration of this policy.
- ACCEPTED: December 11, 2007

APPROVED BY THE BOARD



Vernon Shelley, Chairman of the Board

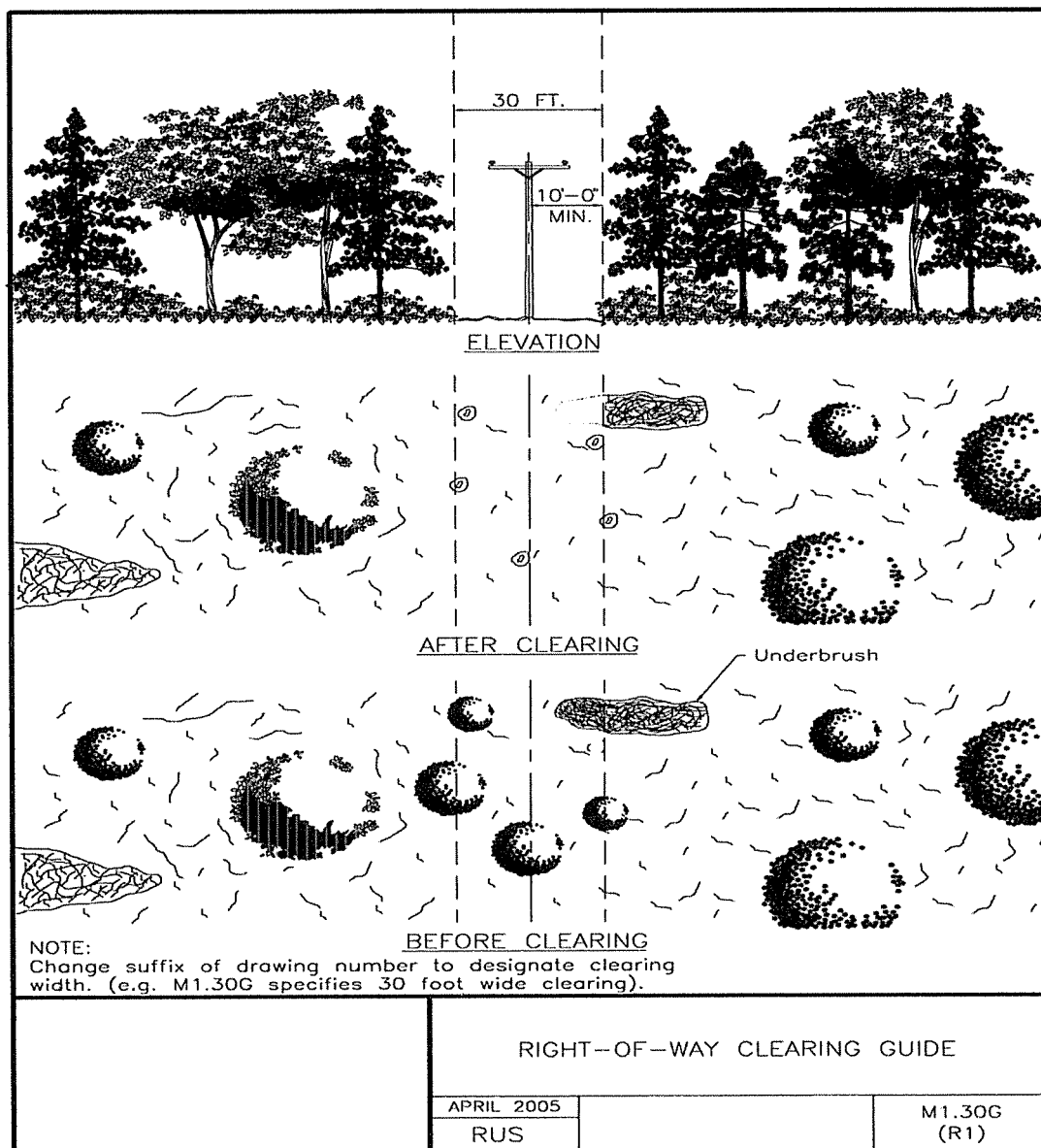
Tuesday, December 04, 2007

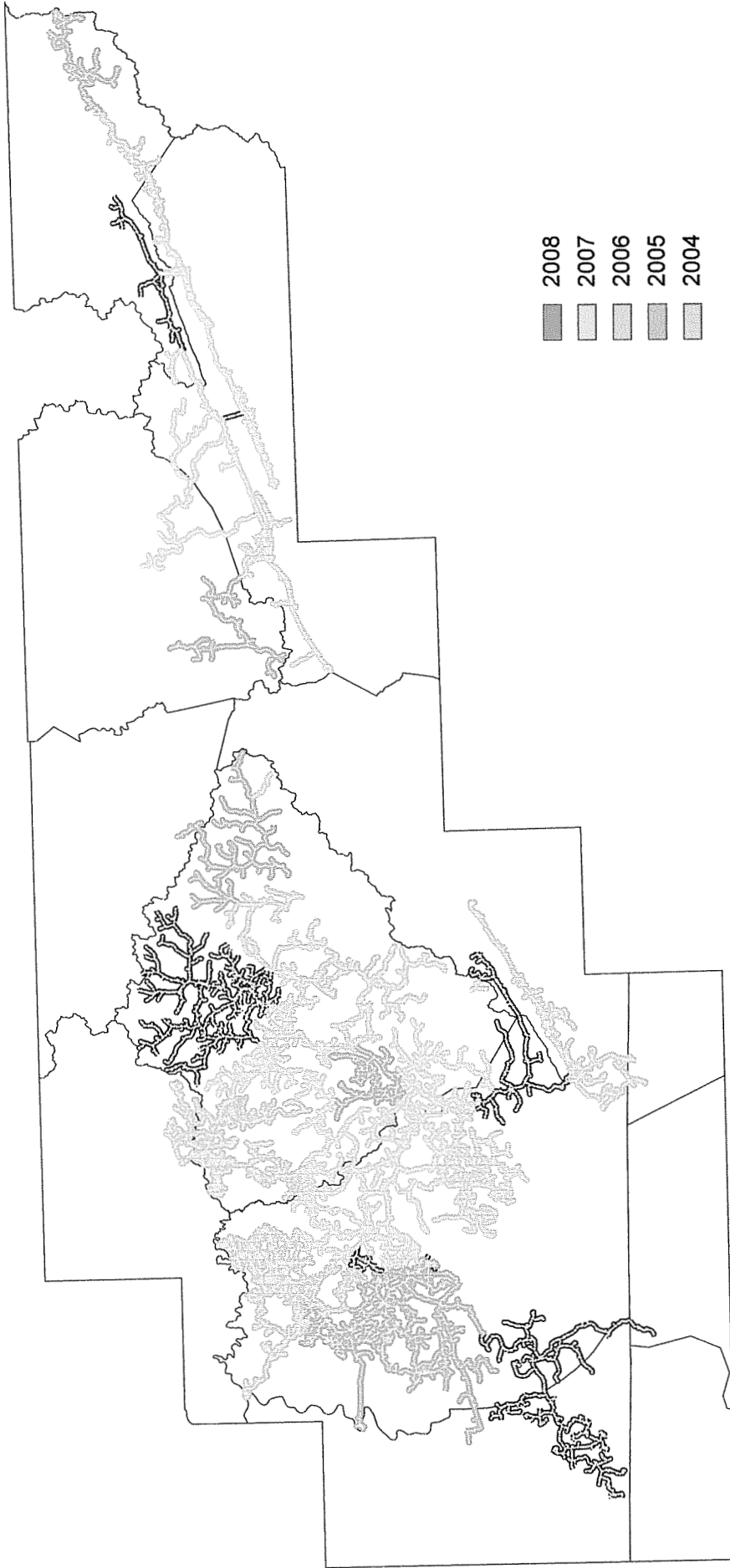
RUS SPECIFICATIONS FOR RIGHT-OF-WAY CLEARING

The right-of-way shall be prepared by removing trees, clearing underbrush, and trimming trees so that the right-of-way is cleared close to the ground and to the width specified. However, low growing shrubs, which will not interfere with the operation or maintenance of the line, can be left undisturbed if so directed by the property owner. Trim, but do not remove shade, fruit, or ornamental trees unless otherwise authorized.

All trimming shall be done using good arboricultural practices.

The landowner's written permission is usually required prior to cutting trees outside of right-of-way. Trim trees fronting each side of the right-of-way which would strike the line in falling. Also, either remove or top leaning trees beyond the right-of-way that would strike the line in falling.





- 2008
- 2007
- 2006
- 2005
- 2004

**2004 THRU 2008 VEGETATION
MANAGEMENT PLAN**

DATE	REVISIONS	CUMBERLAND VALLEY ELECTRIC, INC.	MAP 1
		GRAY, KENTUCKY	CIRCUIT DIAGRAM
		KENTUCKY #1	CORBIN
		DRAWN BY: JAG	DATE: NOVEMBER 11, 2007
		CHECK BY: JAG	APPROVED BY: [Signature]
			SHEET 1 OF 1

APPENDIX E