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**Rules of**  
**Department of Economic**  
**Development**  
**Division 240—Public Service Commission**  
**Chapter 23—Electric Utility Operational Standards**

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**Title 4—DEPARTMENT OF  
ECONOMIC DEVELOPMENT  
Division 240—Public Service  
Commission  
Chapter 23—Electric Utility  
Operational Standards**

**4 CSR 240-23.010 Electric Utility System  
Reliability Monitoring and Reporting Sub-  
mission Requirements**

*PURPOSE: This rule establishes reliability monitoring and reporting requirements for electrical corporations.*

(1) Information Reported. Commencing with the month following the month in which this rule becomes effective, each electrical corporation (as defined in section 386.020, RSMo) shall accumulate the following information (on a monthly basis):

(A) System Average Interruption Frequency Index (SAIFI), which reflects the average frequency of service interruptions in number of occurrences per customer and is defined as the total number of customer interruptions for the period covered divided by the total number of customers served;

(B) Customer Average Interruption Frequency Index (CAIFI), which reflects the average number of interruptions per customer interrupted and is defined as the total number of customer interruptions for the period covered divided by the total number of customers affected;

(C) System Average Interruption Duration Index (SAIDI), which reflects the average interruption in hours or minutes per customer served for the period covered and is defined as the sum of all customer interruption durations divided by the total number of customers served; and

(D) Customer Average Interruption Duration Index (CAIDI), which reflects the average interruption duration and is defined as the sum of all customer interruption durations divided by the total number of customers interrupted.

(2) Filing of Report. The information required by section (1) shall be filed annually by the last business day of April of the calendar year following the calendar year for which the information was accumulated to the manager of the commission's energy department, or the manager's designee, electronically in tabular and graphical formats.

(3) Adjustment of Data. The information required by section (1) shall be filed both unadjusted and adjusted to exclude major

storm events per IEEE Standard 1366-2003, Guide for Electric Power Distribution Reliability Indices.

(4) Scope of Information. The information required by section (1) shall be reported for all Missouri retail electric customers of the electrical corporation.

(5) Interruptions Not to Be Reported. The following interruption causes shall not be included in the calculation of the reliability indices required by section (1):

(A) Interruptions initiated pursuant to the provisions of an interruptible service tariff or contract and affecting only those customers taking electric service under such tariff or contract;

(B) Interruptions due to nonpayment of a bill;

(C) Interruptions due to tampering with service equipment;

(D) Interruptions due to denied access to service equipment located on the affected customer's private property;

(E) Interruptions due to hazardous conditions located on the affected customer's private property;

(F) Interruptions due to a request by the affected customer;

(G) Interruptions due to a request by a law enforcement agency, fire department, other governmental agency responsible for public welfare, or any agency or authority responsible for bulk power system security or reliability; or

(H) Interruptions caused by the failure of a customer's equipment; the operation of a customer's equipment in a manner inconsistent with law, an approved tariff, rule, regulation, or an agreement between the customer and the electrical corporation; or the failure of a customer to take a required action that would have avoided the interruption, such as failing to notify the electrical corporation of an increase in load when required to do so by a tariff or contract.

(6) Worst Performing Circuits. Each electrical corporation shall establish and maintain a program for identifying and analyzing its worst performing circuits during the course of each calendar year. The program shall include, but should not be limited to, an analysis of the top five percent (5%) worst performing circuits used to serve the electrical corporation's Missouri retail electric customers. The worst performing circuits shall be identified and ranked using SAIFI values computed for each circuit, adjusted to exclude major storm events per IEEE Standard 1366-2003, Guide for Electric Power

Distribution Reliability Indices and in any other manner chosen by the electrical corporation. The SAIDI value for each circuit shall also be listed.

(7) The information developed in accordance with section (6) shall be reported as part of the annual report required by section (2) and shall also include actions taken (or planned) to improve the performance of the circuits identified in section (6).

(8) Multi-Year Worst Performing Circuit Reporting. If, on or after the time the annual report required by section (7) for calendar year 2011 is filed, a circuit has been on the worst performing circuit list for any two (2) of the three (3) most recent consecutive calendar years, the electrical corporation shall include detailed plans and schedules for improving the performance of that circuit in addition to the other information required by section (7). Such plans and schedules may vary from circuit to circuit based on differences in geography or other local conditions, customer density, and cost considerations.

(9) Reliability Improvement Programs. Each electrical corporation shall transmit to the manager of the energy department of the commission, or the manager's designee, no later than the last business day of December each year: A summary report detailing all programs scheduled for the upcoming calendar year designed to maintain or improve service reliability. The information shall be reported by regional/district/division operating areas, if the electrical corporation's operations are divided into regions/districts/divisions. This report shall include funding levels and the status of each of these programs. The first such report shall be transmitted no later than December 31, 2008.

(10) Residential Subdivision Undergrounding. Where reasonable and consistent with utility easements and applicable law, electrical corporations are to locate all newly installed electrical corporation-owned residential subdivision distribution facilities underground. This provision applies to residential subdivisions with average lots no larger than 0.5 acres. As used in this provision, subdivision distribution facilities refer to terminal poles, manholes, feeder lines, service lines, switchgear, pad-mounted, pole-mounted, or submersible transformers, and pedestals utilized to provide electric service to subdivisions but does not include subtransmission lines and three (3)-phase distribution feeders/backbone circuits (portion of distribution system directly interconnected with



distribution substation and prior to the first protective device). If an electric corporation determines that it is not reasonable to place a residential subdivision's distribution facilities underground and the subdivision has average lots no larger than 0.5 acres, the electrical corporation shall maintain records available for Public Service Commission (PSC) inspection to demonstrate why undergrounding was unreasonable.

(11) Comparison of Reliability Metrics. The commission may accumulate the information required by section (1) from the electrical corporations and provide this information to the public. Such disclosure shall include a statement that such indices are affected by customer density, tree density, geography, observed weather, and other factors that may be beyond the control of the electrical corporation. Further, the commission may release comparisons of this data with similar data from other states but in doing so shall include in the release any caveats that would explain differences in the indices. These caveats shall include, but are not limited to, differences in calculation methodologies.

(12) Variances. A variance from a provision of this rule may be granted for good cause shown.

*AUTHORITY: sections 386.040, 386.250, 386.310, and 393.140, RSMo 2000 and section 393.130, RSMo Supp. 2007.\* Original rule filed Jan. 15, 2008, effective July 30, 2008.*

*\*Original authority: 386.040, RSMo 1939; 386.250, RSMo 1939, amended 1963, 1967, 1977, 1980, 1987, 1988, 1991, 1993, 1995, 1996; 386.310, RSMo 1939, amended 1979, 1989, 1996; 393.130, RSMo 1939, amended 1949, 1967, 2002; and 393.140, RSMo 1939, amended 1949, 1967.*

**4 CSR 240-23.020 Electrical Corporation Infrastructure Standards**

*PURPOSE: This rule establishes the minimum requirements for the transmission and distribution facilities of electrical corporations as defined in section 386.020(15), RSMo Supp. 2007 regarding inspection (including maximum allowable inspection cycle lengths), condition rating, scheduling and performance of corrective action, record keeping, and reporting, in order to provide safe and adequate electrical service. These requirements shall be based on factors such as applicable industry codes, national electric industry practices, manufacturer's rec-*

*ommendations, sound engineering judgment and past experience.*

(1) Applicability. This rule applies to all electrical corporations as defined in section 386.020(15), RSMo Supp. 2007.

(2) Definitions. For the purpose of this rule:

(A) Corrective action means maintenance, repair, or replacement of electrical corporation equipment and structures so that they function properly and safely. Temporary interruption of service or remedial action is appropriate until corrective action can be completed;

(B) Detailed inspection means an inspection where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic testing, as appropriate, and (if practicable and if useful information can be so gathered) opened, and the condition of each rated and recorded;

(C) Intrusive inspection means an inspection involving movement of soil, taking samples for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections or instrument reading;

(D) Operating area means a geographical subdivision of each electrical corporation's franchise territory as defined by the electrical corporation. These areas may also be referred to as regions, divisions or districts;

(E) Patrol means a simple visual inspection, of applicable electrical corporation equipment and structures, which is designed to identify obvious structural problems and hazards. Patrols may be carried out in the course of other electrical corporation business;

(F) Remedial action means action taken immediately or as soon as possible to eliminate an imminent hazard to person or property. Remedial action may be temporary, pending final corrective action. Remedial action may include the temporary interruption of service;

(G) Rural means those areas where there are fewer than thirty-five (35) customers per circuit mile;

(H) Underground network means an electrical distribution system typically located in manholes, vaults, tunnels, and other underground structures; and

(I) Urban means those areas where there are thirty-five (35) or more customers per circuit mile.

(3) Standards for Inspection, Record Keeping, and Reporting.

(A) Each electrical corporation subject to this rule shall have personnel, sufficiently trained in inspections, conduct inspections of its transmission and distribution facilities

operated above six hundred (600) volts, as necessary to provide safe and adequate service pursuant to section 393.130.1, RSMo Supp. 2007, but in no case may the period between inspections (measured in years) exceed the time specified in the table, included herein, titled "Electrical Corporation System Inspection Cycles (Maximum Intervals in Years)."

(B) Each electrical corporation subject to this rule shall file at the commission by no later than July 1, 2008, compliance plans for the inspections and record keeping required by this rule, with verification by affidavit of an officer who has knowledge of the matters stated therein. These compliance plans shall include the proposed forms and formats for annual reports and source records, as well as the electrical corporation's plans for the types of inspections and equipment to be inspected during July 1 through December 31, 2008 and the coming calendar year. The electrical corporation's compliance plans shall include a projected schedule for completing a full cycle for each infrastructure classification shown in the attached table titled "Electrical Corporation System Inspection Cycles (Maximum Intervals in Years)." The commission may prescribe changes to an individual electrical corporation's obligations relating to reporting and record keeping formats and forms when and as necessary. None of these changes may conflict with the requirements of this rule unless specifically approved by the commission through a variance.

(C) Each electrical corporation subject to this rule shall file with the commission an annual report detailing its compliance with this rule during the prior calendar year, with verification by affidavit of an officer who has knowledge of the matters stated therein. The first report required under this section shall be filed with the commission by no later than July 1, 2009 and will cover calendar year 2008. Each electrical corporation shall file subsequent annual reports for every following year by no later than July 1 covering the prior calendar year. The report shall identify the number of facilities, by type, which have been inspected during the previous reporting period. It shall identify those facilities that were scheduled for inspection but that were not inspected according to schedule and shall explain why the inspections were not conducted, and provide the electrical corporation's recovery plan to perform the required inspections. The report shall also present the total number and percentage breakdown of equipment rated at each condition rating level, including that equipment determined to be in need of corrective action. Where corrective action was scheduled during the



reporting period, the report shall present the total number and percentage of equipment that was or was not corrected during the reporting period. For those instances in which equipment was scheduled to have corrective action but the equipment was not corrected during the reporting period, an explanation shall be provided, including a date certain by which required corrective action will occur. The report shall also present totals and the percentage of equipment in need of corrective action, but with a scheduled date beyond the reporting period, classified by the amount of time remaining before the scheduled action. All of the above information shall be presented for each type of facility identified in the table, included herein, titled “Electrical Corporation System Inspection Cycles (Maximum Intervals in Years).” If periodic reporting of infrastructure inspection results is required by another governmental entity, those reports shall also be filed at the commission.

(D) The electrical corporation shall maintain records of inspection activities which shall be made available to commission staff for inspection pursuant to section 393.140, RSMo 2000 and 4 CSR 240-10.010.

(E) For all inspections, within a reasonable period, electrical corporation records shall specify the circuit, area, or equipment inspected, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, electrical corporations shall also rate the condition of inspected equipment. Upon completion of corrective action, electrical corporation records shall show the nature of the work and the date the work was performed.

(F) Where facilities are exposed to extraordinary conditions or when an electrical corporation has demonstrated a pattern of non-compliance with Commission Safety Standards, 4 CSR 240-18; Electrical Corporation Infrastructure Standards, 4 CSR 240-23.020; or any other commission rules relating to the provision of safe and adequate service, the commission may require a shorter interval between inspections.

(G) Commission staff shall review each electrical corporation’s annual report and may inspect and verify that the electrical corporation is in compliance with this rule.

(H) If the electrical corporation discovers, or should have discovered, upon inspection as required under this rule, or the electrical corporation is otherwise given notice that prudent operation of facilities would require corrective action, then it shall take such corrective action within a reasonable period of time. If harm to person or property is

imminent, then corrective or remedial action shall be taken immediately, or as soon as possible.

(4) In the event an electrical corporation incurs expenses as a result of this rule in excess of the costs included in current rates, the corporation may submit a request to the commission for accounting authorization to defer recognition and possible recovery of these excess expenses until the effective date of rates resulting from its next general rate case, filed after the effective date of this rule, using a tracking mechanism to record the difference between the actually incurred expenses as a result of this rule and the amount included in the corporation’s rates, or if there is no identifiable amount included in the corporation’s rates, the amount reflected in the appropriate accounts for infrastructure inspection and maintenance on the corporation’s books for the test year (as updated) from the corporation’s last rate case will be used to determine the amount included in current rates. In the event that such authorization is granted, the next general rate case must be filed no later than five (5) years after the effective date of this rule. Parties to any electrical corporation request for accounting authorization pursuant to this rule may ask the commission to require the electrical corporation to collect and maintain data (such as actual revenues and actual infrastructure inspection expenses) until such time as the commission addresses ratemaking for the deferrals. The commission will address the ratemaking of any costs deferred under these accounting authorizations at the time the electrical corporation seeks ratemaking in a general rate case.

(5) Variances. A variance from a provision of this rule may be granted for good cause shown. Nothing in this rule shall prevent an electrical corporation from proposing and the commission from approving an alternative infrastructure inspection program varying from the table, included herein, titled “Electrical Corporation System Inspection Cycles (Maximum Intervals in Years)” if the electrical corporation can establish that the alternative infrastructure inspection program has previously produced equal to or greater reliability performance than what would be produced under this rule or that the alternative infrastructure inspection program shall produce equal to or greater reliability performance in the future than what would be produced under this rule.





**Electrical Corporation System Inspection Cycles**  
(Maximum Intervals in Years)

	Patrol		Detailed		Intrusive		Notes
	Urban	Rural	Urban	Rural	Urban	Rural	
<b>Poles/Overhead Structures</b>							
Wood	4	6	---	---	12	12	Note 1
Non-wood	4	6	12	12	---	---	Note 2
<b>Conductors, Transformers, Reclosers, Regulators, Capacitors, Switching/Protective Devices, and Streetlighting</b>							
Overhead	4	6	8	12	---	---	
Overhead (with real-time remote monitoring)	---	---	12	12	---	---	
Underground-direct buried and conduit	4	6	8	12	---	---	Note 3
Underground-direct buried and conduit (with real-time remote monitoring)	---	---	12	12	---	---	Note 3
<b>Underground Networks</b>							
Underground Networks (with real-time remote monitoring)	4	---	8	---	---	---	
<b>Manholes, vaults, tunnels, and Other underground structures</b>							
Manholes, vaults, tunnels, and Other underground structures	4	6	8	12	---	---	

Note 1: No intrusive inspection required for first 12 years after installation, however, intrusive inspection required between years 12 and 18. For poles/structures greater than 12 years of age at inception of program, intrusive inspections must be completed within 12 years.

Note 2: No detailed inspection required for first 12 years after installation, however, detailed inspection required between years 12 and 18. For poles/structures greater than 12 years of age at inception of program, detailed inspections must be completed within 12 years.

Note 3: Some components of underground-direct buried and conduit distribution systems are above ground (e.g., pad-mounted transformers, pad-mounted switches, pad-mounted reclosers, etc.) The inspection intervals also apply to these above ground devices. These inspection requirements do not apply to direct-buried cable or cable installed in underground conduit.



*AUTHORITY: sections 386.040, 386.250, 386.310 and 393.140, RSMo 2000 and section 393.130, RSMo Supp. 2007.\* Original rule filed Dec. 14, 2007, effective June 30, 2008.*

*\*Original authority: 386.040, RSMo 1939; 386.250, RSMo 1939, amended 1963, 1967, 1977, 1980, 1987, 1988, 1991, 1993, 1995, 1996; 386.310, RSMo 1939, amended 1979, 1989, 1996; 393.130, RSMo 1939, amended 1949, 1967, 1969, 2002; and 393.140, RSMo 1939, amended 1949, 1967.*

#### 4 CSR 240-23.030 Electrical Corporation Vegetation Management Standards and Reporting Requirements

*PURPOSE: This rule sets forth requirements that electrical corporations shall follow in managing vegetation in proximity to an energized distribution conductor and sets reporting requirements for transmission line vegetation management in order to promote a safe, efficient and reliable supply of electric power. The requirements in this rule provide the minimum standards for the vegetation management programs of electrical corporations. Each electrical corporation must have a vegetation management plan and keep appropriate records to ensure that timely vegetation management is accomplished. These records must be made available to the Missouri Public Service Commission (commission) upon request.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) Definitions. The following words and terms, when used in this rule, shall have the following meaning unless the context clearly indicates otherwise.

(A) Arboriculture means the cultivation of trees, shrubs and other woody plants.

(B) Contractor means a person or entity, other than the commission, with which electrical corporation contracts to perform work, furnish information and/or material. This term includes all subcontractors engaged by a contractor to perform any of the obligations required by a contract.

(C) Distribution line means a primary elec-

tric voltage line, wire or cable, energized at less than two hundred thousand (200,000) volts. However, any distribution line subject to this rule shall thereafter be exempt from this rule at such time the electrical corporation provides the commission written proof that such distribution line has been deemed "critical to the reliability of the region" by the Federal Energy Regulatory Commission (FERC), a regional reliability organization or the North American Electric Reliability Council (NERC).

(D) Energized conductor means an electric circuit or equipment through which electricity is flowing or usually flows within the transmission or distribution system.

(E) Electrical corporation means electrical corporation as defined in section 386.020(15), RSMo Supp. 2007.

(F) Right-of-way means less than fee interest in property, which gives a public utility a limited right to use land owned by another person or entity for the purpose of transmitting or distributing electricity. This right is typically memorialized in an easement.

(G) Rural means those areas in which there are fewer than thirty-five (35) customers per circuit mile.

(H) Transmission line means an electrical line, wire or cable (including the supporting structures), and appurtenant facilities which transmits electricity from a generating plant to electric distribution lines, and is operated at or above two hundred thousand (200,000) volts.

(I) Tree means a woody plant at least twelve feet (12') tall at maturity with one (1) main stem and having a distinct head in most cases.

(J) Urban means those areas in which there are thirty-five (35) or more customers per circuit mile.

(K) Vegetation means trees, shrubs and other woody plants.

(L) Vegetation management means the removal of vegetation or the prevention of vegetative growth to maintain safe conditions around energized conductor(s) and ensure reliable electric service. Vegetation management consists of biological, chemical, cultural, manual and mechanical methods to control vegetation in order to prevent hazards caused by the encroachment of vegetation on energized conductor(s), and to provide utility access to the conductor.

(M) Volts means nominal voltage levels, measured phase-to-phase.

(N) Woody plant means any vascular plant that has a perennial woody stem and supports continued vegetative growth above ground from year-to-year and includes trees.

(2) General Provisions.

(A) An electrical corporation shall ensure that vegetation management is conducted in accordance with this rule along energized distribution line conductors of six hundred (600) volts and higher, that the electrical corporation owns, in whole or in part.

(B) Each electrical corporation shall obtain for its own employees, and shall contractually require that its contractors obtain, all required permits and licenses prior to commencement of vegetation management.

(C) Each electrical corporation and its contractors using chemical or biological agents in vegetation management shall comply with any laws or regulations governing the use of those biological and chemical agents.

(D) Each electrical corporation shall employ a vegetation manager. The vegetation manager shall supervise all aspects of the electrical corporation's vegetation management program, and shall ensure that the electrical corporation complies with this rule. The vegetation manager's name and contact information shall be posted on the electrical corporation's website and shall be included on all notifications provided pursuant to the notice requirements of section (7) of this rule.

(E) Each electrical corporation and its contractors shall inform workers hired to perform vegetation management of all applicable federal, state, county, and municipal laws, rules or regulations that apply to the work performed under this rule. The electrical corporation shall also ensure that all contractors comply with each applicable requirement of this rule.

(F) An electrical corporation that agrees to perform vegetation management at the request of a municipality or government agency, other than vegetation management required under this rule, may require the requesting party to pay any cost above the electrical corporation's cost to perform the vegetation management required by this rule. An electrical corporation shall not perform such additional vegetation management if the additional vegetation management would decrease the reliability or safety of an energized conductor.

(G) Upon an electrical corporation's receiving notice of, or having actual knowledge of, vegetation conditions that pose an imminent threat to the reliable or safe function of electrical facilities, the electrical corporation shall promptly remove or remedy the potential threat. If, pursuant to the first sentence of this section, removal of the vegetation requires the electrical corporation to access or cross property for which it does not hold an easement or other legal authorization, the electrical corporation shall make



reasonable efforts to obtain any necessary permission from the property owner and remove or remedy the potential safety concern as promptly as possible.

### (3) Maintenance Cycle.

(A) An electrical corporation shall perform a visual inspection at least once every two (2) years of all urban energized distribution conductors and at least once every three (3) years of all rural energized distribution conductors, to determine whether vegetation management is needed. Where needed, the electrical corporation shall perform vegetation management in a timely manner. Vegetation management performed along a circuit in compliance with this rule shall meet this two (2)- or three (3)-year visual inspection requirement, accordingly.

(B) In addition to the maintenance required in subsection (3)(A) above, if an electrical corporation becomes aware either through notification or during the inspections required under subsection (3)(A) above or at any other time, of any vegetation close enough to pose a threat to its energized conductor, which is likely to affect reliability or safety prior to the next required vegetation management, the electrical corporation shall ensure that necessary vegetation management is promptly performed as required under section (4) of this rule.

### (4) Technical Standards for Vegetation Management.

(A) Each electrical corporation shall ensure that vegetation management conducted on its energized distribution conductors is performed in accordance with the following applicable standards, which are hereby incorporated by reference, include no later amendments or additions, are on file with the commission's data center and available for inspection:

1. "Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush—Safety Requirements, 2006." This document, also known as ANSI Z133.1-2006, is published by the American National Standards Institute, 1819 L Street, N.W., Suite 600, Washington, DC 20036;

2. Part 1 of the document entitled "Tree, Shrub, and Other Woody Plant Maintenance—Standard Practices, 2001." This document, also known as ANSI A300-2001, is published by the American National Standards Institute, 1819 L Street, N.W., Suite 600, Washington, DC 20036; and

(B) Each electrical corporation shall develop its own vegetation management standards, guidelines and procedures, which shall be consistent with this rule. In developing these

standards, guidelines and procedures, an electrical corporation shall prioritize its vegetation management based upon:

1. The extent of the potential for vegetation to interfere with the energized conductor;

2. The voltage of the affected energized conductor; and

3. The relative importance of the affected energized conductor in maintaining safety and reliability.

(C) Each electrical corporation shall file a copy of its vegetation management standards, guidelines and procedures at the commission by July 1, 2008, with verification by affidavit of an officer who has knowledge of the matters stated therein. If an electrical corporation makes a change in its vegetation management standards, guidelines or procedures, it shall file a copy of the change at the commission no later than thirty (30) days prior to implementing the change, with verification by affidavit of an officer who has knowledge of the matters stated therein.

(D) Each electrical corporation's vegetation management standards, guidelines and procedures shall cover, at a minimum, all of the following activities:

1. Tree pruning and removal;

2. Vegetation management around poles, substations and energized conductors;

3. Manual, mechanical, biological or chemical vegetation management along rights-of-way;

4. Inspection of areas where vegetation management is performed, both before and after the vegetation management;

5. Research and development of improved vegetation management; and

6. Public education.

(E) Among the factors the electrical corporation shall consider in determining the extent of vegetation management to be performed at a particular site are:

1. The rate at which each species of vegetation is likely to grow back;

2. The voltage of the energized conductor, with higher voltages requiring larger clearances;

3. Sag of conductors at elevated temperatures and under wind and ice loading, and growth habit, strength, and health of vegetation growing adjacent to the conductor with the combined displacement of the vegetation, supporting structures, and conductors under adverse weather or routine wind conditions; and

4. The electrical corporation's legal rights to access the area where vegetation management is to be performed.

(F) The electrical corporation shall remove all trimmings and cut vegetation resulting

from vegetation management that are part of the electrical corporation's regular maintenance cycle, within five (5) business days after the vegetation was cut, except if:

1. The electrical corporation obtains consent from the owner of the property upon which the trimmings or cut vegetation are located to leave the trimmings or cut vegetation; or

2. The vegetation management is performed as a direct result of an outage caused by a storm as described in the electrical corporation's standard procedures. The electrical corporation shall include a copy of its standard procedures regarding removal of trimmings or cut vegetation during outages caused by a storm in its annual vegetation management filing. If the electrical corporation proposes to change its standard procedures regarding removal of trimmings or cut vegetation during outages caused by a storm, the electrical corporation shall file the proposed changes with the commission, and other parties shall have thirty (30) days to comment on the proposed changes.

(5) Transmission Line Vegetation Management. Every electrical corporation shall send the commission's energy department a copy of every filing it makes on vegetation management of its transmission lines with the FERC, a regional reliability organization, or the NERC.

### (6) Training, Record Keeping and Reporting.

(A) Each electrical corporation shall adopt standards to be used by all persons who perform vegetation management for the electrical corporation, whether employees or contractors, for the proper care of trees and other woody plants, including safety practices and line clearance techniques.

(B) The electrical corporation shall monitor and document all scheduled vegetation management and related activities it or its contractors performs. Documentation shall include, but shall not be limited to:

1. Identification of each circuit and substation where vegetation management was performed;

2. The type of vegetation management performed including removal, trimming and spraying and methods used;

3. The crew size and supervisor's name;

4. The date of activity;

5. Any safety hazards encountered; and

6. Any unexpected occurrence or accident resulting in death, life-threatening or serious injury to a person assigned to perform vegetation management activities or the public;

(C) Each electrical corporation shall





include a summary of the information required in subsection (6)(B) above about its vegetation management during the past year, and vegetation management planned for the following year in an annual report to be filed with the commission by April 1 each year, with verification by affidavit of an officer who has knowledge of the matters stated therein. The report shall also include:

1. Expenditures for vegetation management in the preceding year;
2. Vegetation management budget for the current year;
3. Circuits, completion dates and miles trimmed in the preceding year;
4. Circuits, completion dates and miles scheduled for the current year; and
5. Total distribution miles for the system and corresponding classification between rural and urban.

(D) Each electrical corporation shall report its own violations of this rule to the commission within thirty (30) days of discovery and include its plan for correcting the violation.

(E) The staff of the commission shall review each electrical corporation's vegetation management annual report for compliance with the provisions of this rule. The staff shall identify any deficiencies in the annual report of each electrical corporation and file its analysis and recommendations for each electrical corporation complying with the provisions of this rule.

#### (7) Public Notice of Planned Vegetation Management.

(A) Each electrical corporation shall make a diligent attempt to notify all property owners or occupants that may be affected by planned vegetation management. This requirement will be satisfied if the electrical corporation provides notice to affected property owners or occupants at least seven (7) days, but not more than ninety (90) days, prior to performing planned vegetation management activity. Notice shall be provided by direct mailing, door hanger, postcard, bill insert, personal contact or any other commission-approved method.

(B) Each electrical corporation shall maintain a record of the dates, content, and addresses to which all notices provided under subsection (7)(A) were given until the subsequent vegetation management cycle has occurred for each affected property owner or occupant.

(C) Each electrical corporation or its contractor shall provide written notice of any pending vegetation management activities to a primary contact for each county and municipality affected. The primary contact shall be selected by mutual agreement between the

electrical corporation and the highest elected official, or if no elected official, then the highest appointed official, of the county and municipality.

(D) An electrical corporation shall notify counties and municipalities that may be affected by vegetation management activities. The notice shall be made in writing to the primary contact designated under subsection (7)(C) above, at least two (2) months in advance of the planned vegetation management. This notice shall include the planned dates and locations of the vegetation management. In addition, the notice of vegetation management shall be in a form appropriate to each electrical corporation's procedures and easement rights.

#### (8) Outreach Programs.

(A) Each electrical corporation shall conduct an annual public education program to inform its customers, as well as the political subdivisions in the electrical corporation's service territory, of the importance of vegetation management, and of the electrical corporation's role and responsibility in managing vegetation near electric lines.

(B) The public education program required under this section shall be implemented by direct mail or another method approved by the commission.

(C) Each electrical corporation shall post its public education materials on its website.

#### (9) Specific Requirements.

(A) Each electrical corporation shall perform vegetation management in accordance with this rule as follows:

1. On no less than fifteen percent (15%) of its total urban distribution miles by the twelve (12) month anniversary of the effective date of this rule, and on no less than fifteen percent (15%) of its total rural distribution miles by the eighteen (18) month anniversary of the effective date of this rule;

2. On no less than forty percent (40%) of its total urban distribution miles by the twenty-four (24) month anniversary of the effective date of this rule, and on no less than forty percent (40%) of its total rural distribution miles by the thirty-six (36) month anniversary of the effective date of this rule;

3. On no less than seventy percent (70%) of its total urban distribution miles by the thirty-six (36) month anniversary of the effective date of this rule, and on no less than seventy percent (70%) of its total rural distribution miles by the fifty-four (54) month anniversary of the effective date of this rule;

4. On no less than one hundred percent (100%) of its total urban distribution miles by the four (4) year anniversary of the effective

date of this rule, and on no less than one hundred percent (100%) of its total rural distribution miles by the six (6) year anniversary of the effective date of this rule; and

5. Thereafter, on no less than twenty-five percent (25%) of its total urban distribution miles each year, and on no less than twenty-five percent (25%) of its total rural distribution miles each eighteen (18) months.

(B) To the extent permitted by current easements or other authority, each electrical corporation must maintain the following minimum clearances of vegetation from conductors at the time vegetation management is conducted:

1. For conductors energized above fifty thousand (50,000) volts, fifteen feet (15') or the edge of the right of way, whichever is less;

2. For conductors energized at six hundred (600) through fifty thousand (50,000) volts, ten feet (10') or the edge of the right of way, whichever is less;

3. Subtransmission lines and three (3)-phase distribution feeders/backbone circuits (portion of distribution system directly interconnected with distribution substation and prior to the first protective device) shall be trimmed vertically to remove overhanging limbs to the widths prescribed in paragraphs (9)(B)1. and (9)(B)2. above;

4. Notwithstanding any provision to the contrary in this section (9), for conductors energized at or below thirty-five thousand (35,000) volts, mature trees whose trunks or limbs have sufficient strength and rigidity to prevent the trunk or limbs from damaging the conductor under reasonably foreseeable wind and weather conditions are exempt from the minimum clearance requirements in this section (9); and

5. The radial clearances in subsection (9)(B) are minimum clearances that should be established between the vegetation and the energized conductors and associated live parts where practicable. Vegetation management practices may make it advantageous to obtain greater clearances than those listed. In the event that the specific trimming conflicts with any other materials within this chapter the strictest rules shall apply.

(10) In the event an electrical corporation incurs expenses as a result of this rule in excess of the costs included in current rates, the corporation may submit a request to the commission for accounting authorization to defer recognition and possible recovery of these excess expenses until the effective date of rates resulting from its next general rate case, filed after the effective date of this rule, using a tracking mechanism to record the





difference between the actually incurred expenses as a result of this rule and the amount included in the corporation's rates, or if there is no identifiable amount included in the corporation's rates, the amount reflected in the appropriate uniform system of accounts account for vegetation management on the corporation's books for the test year (as updated) from the corporation's last rate case will be used to determine the amount included in current rates. In the event that such authorization is granted, the next general rate case must be filed no later than five (5) years after the effective date of this rule. Parties to any electrical corporation request for accounting authorization pursuant to this rule may ask the commission to require the electrical corporation to collect and maintain data (such as actual revenues and actual vegetation management expenses) until such time as the commission addresses ratemaking for the deferrals. The commission will address the ratemaking of any costs deferred under these accounting authorizations at the time the electrical corporation seeks ratemaking in a general rate case.

(11) Variances. A variance from a provision of this rule may be granted only for good cause shown. Nothing in this rule shall prevent an electrical corporation from proposing and the commission from approving an alternative vegetation management plan in variance of paragraphs (9)(B)1. and 2., if the electrical corporation can establish that the alternative vegetation management plan has previously produced greater reliability performance than would be produced under this rule or that the alternative vegetation management plan shall produce greater reliability performance in the future than would be produced under this rule.

*AUTHORITY: sections 386.040, 386.250, 386.310 and 393.140, RSMo 2000 and section 393.130, RSMo Supp. 2007.\* Original rule filed Dec. 14, 2007, effective June 30, 2008.*

*\*Original authority: 386.040, RSMo 1939; 386.250, RSMo 1939, amended 1963, 1967, 1977, 1980, 1987, 1988, 1991, 1993, 1995, 1996; 386.310, RSMo 1939, amended 1979, 1989, 1996; 393.130, RSMo 1939, amended 1949, 1967, 1969, 2002; and 393.140, RSMo 1939, amended 1949, 1967.*