

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

INVESTIGATION BY THE INDIANA)	
UTILITY REGULATORY COMMISSION,)	
UNDER §§8-1-2-58 AND 59, TO)	
INVESTIGATE ELECTRIC UTILITY)	
TREE-TRIMMING PRACTICES AND)	CAUSE NO. 43663
TARIFFS RELATING TO SERVICE)	
QUALITY IN THE STATE OF INDIANA.)	
)	
RESPONDENTS: ALL INDIANA)	
JURISDICTIONAL ELECTRIC UTILITIES.)	

**VECTREN ENERGY DELIVERY OF INDIANA'S SUBMISSION OF ITS 2020
VEGETATION MANAGEMENT REPORT AND VEGETATION MANAGEMENT PLAN**

Respondent Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc., a CenterPoint Energy Company, hereby submits its 2019 Vegetation Management Report and Vegetation Management Plan in accordance with the November 30, 2010 Order in this Cause.

Respectfully submitted,



Heather A. Watts (Atty. No. 35482-82)
Justin C. Hage (Atty. No. 33785-32)
Robert E. Heidorn (Atty. No. 14264-49)
CENTERPOINT ENERGY, INC.
One Vectren Square
211 N.W. Riverside Drive
Evansville, Indiana 47708
Telephone: (812) 491-5119
Facsimile: (812) 491-4238
Email: Heather.Watts@centerpointenergy.com
Justin.Hage@centerpointenergy.com
Bob.Heidorn@centerpointenergy.com

Attorneys for Southern Indiana Gas and Electric Company, Inc. d/b/a Vectren Energy Delivery of Indiana, Inc., a CenterPoint Energy Company

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served this 16th day of March 2020 by electronic delivery to the following:

OUCC

William Fine
Randall C. Helmen
Office of Utility Consumer Counselor
Suite 1500 South
115 W. Washington Street
Indianapolis, Indiana 46204
wfine@oucc.in.gov
rhelmen@oucc.in.gov
infomgt@oucc.in.gov

IP&L

Teresa E. Morton
Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
tmorton@btlaw.com

HOOSIER

Jeffrey W. Hagedorn
Huber, Goffinet & Hagedorn
727 Main Street
Tell City, Indiana 47586
jhagedorn@psci.net

Robert M. Glennon
Robert Glennon & Assoc., P.C.
3697 N. Co. Rd. 500 E
Danville, Indiana 46122
glennon@iquest.net

Jerome E. Polk
Polk & Associates, LLC
6300 FalconsGate Avenue
Davie, FL 33331-2928
jpolk@polk-law.com

WVPA

Randolph G. Holt
c/o Wabash Valley Power Association, Inc.
722 N. High School Road
Indianapolis, Indiana 46224
R_holt@wvpa.com

Duke

Melanie D. Price
Kelley A. Karn
Duke Energy Business Services LLC
1000 E. Main Street
Plainfield, Indiana 46168
Melanie.price@duke-energy.com
Kelley.karn@duke-energy.com

I&M

Jeffrey M. Peabody
Barnes & Thornburg LLP
11 South Meridian Street
Indianapolis, Indiana 46204
jpeabody@btlaw.com

NIPSCO

Christopher C. Earle
NiSource Corporate Services
101 W. Ohio Street, Suite 1707
Indianapolis, Indiana 46204
cearle@nisource.com

IMPA and IMEA

Steven W. Krohne
Ice Miller LLP
One American Square, Suite 2900
Indianapolis, Indiana 46282
skrohne@hhclaw.com

Indiana Statewide

Charles W. Ritz III
Parr Richey Obrebsky Frandsen &
Patterson LLP
225 W. Main Street
Lebanon, Indiana 46052
critz@parrlaw.com



Heather A. Watts

**SOUTHERN INDIANA GAS & ELECTRIC COMPANY
D/B/A VECTREN ENERGY DELIVERY OF INDIANA, INC.
ELECTRIC VEGETATION MANAGEMENT
ANNUAL REPORT – 2019
3/13/20**

Financial:

2019 Budget: \$4,192,000

2019 Actual: \$4,503,420

Customer Complaints:

Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc. (“Vectren South”) works closely with customers in the field to answer and resolve any vegetation management concerns. Typically, customers’ concerns are quickly resolved in the field before a formal complaint arises. There were 4 customer concerns tracked by Vectren South’s Line Clearance Department. These concerns were tracked because the customer’s concern was not quickly resolved by a utility representative and required additional discussion with the customer. Of the 4 concerns tracked by Vectren South’s Line Clearance Department, no concerns resulted in an IURC complaint being filed.

<u>Type Of Concern</u>	<u>Number</u>	<u>Action Taken</u>	<u>Status</u>
Trim Refusal	1	Talked with customer, trimmed enough for line to have clearance	Closed
Tree Appearance	1	Trimmed tree properly, customer upset due to appearance of tree	Closed
Property Damage	1	Fence damaged due to trimming limbs, contractor met with customer and repaired fence	Closed
Debris Removal	1	Talked to customer, debris removed	Closed
Total Concerns	4		

Reliability:

System Average Interruption Frequency Index (SAIFI): 0.22 contribution from outages categorized as vegetation (excluding Major Event Days) in 2019.

This is approximately 20% of the total SAIFI of 1.08 for 2019.

Vegetation Management Plan (VMP): Please see attached VMP.

	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		



VEC-047 Vegetation Management Program for Voltages Less Than 200 kV



Please refer questions about this document to the Electric Reliability Compliance Department (812-491-5878 or 812-491-4997).

	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Review Policy

This document is reviewed and revised Annually or as necessary due to system changes or changes to the NERC standards. The Annual review is initiated by the Electric Reliability Compliance Department and approved by the Signatory Group. As a result of the Annual review, updates to this document are reflected by redline(s), and the new version of the document is approved by the Signatory Group listed on the signature page(s) of this document. If no changes are required as a result of the document review process, the Signatory Group certifies an Annual review has been conducted and files as evidence in the Electric Reliability Compliance Department Master files.

Approved By:

Name	Title	Date
 Paul Johnson	Manager, Operations Gas & Electric	6/4/19
 Mike Foor	Supervisor, Operations Gas & Electric Senior	6-4-19

	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Revision Table

Revision Number	Revision Date	Effective Date	Revised By	Summary of Changes
0		03/07/18	K. Barr	<ul style="list-style-type: none"> Created and formatted document using 03.04.2016 revision
1	05/01/19	06/04/19	L. Hamby	<ul style="list-style-type: none"> Made content changes based on annual review. See redline(s).

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Table of Contents

1	Introduction	5
1.1	Scope.....	5
1.2	Roles and Responsibilities	6
1.3	Definitions	6
2	Line Clearance Standards	8
2.1	Clearance Distances	8
2.1.1	Electric Transmission	8
2.1.2	Electric Distribution.....	8
2.2	Clearance Procedures.....	10
2.2.1	Tree Trimming.....	10
2.2.2	Mowing.....	11
2.2.3	Electric Transmission Clearance Procedures.....	12
2.2.3.1	Right of Way (ROW) Transmission Maintenance - Natural Areas..	12
2.2.3.2	Right of Way (ROW) Transmission Maintenance - Landscaped Areas	13
2.2.3.3	Mowing – Transmission	13
2.2.4	Electric Distribution Clearance Procedures	13
2.2.4.1	Right of Way (ROW) Distribution Maintenance - Natural Areas	14
2.2.4.2	Right of Way (ROW) Distribution Maintenance - Landscaped Areas	14
2.2.4.3	Mowing – Distribution.....	15
2.3	Disposal Methods	15
2.4	Hazardous Conditions.....	15
3	Electric Distribution.....	16
4	Electric Transmission	16
5	Contractor	17
5.1	General Work Instructions for Contractor	17
5.2	Contractor Supervision	17
5.3	Reporting by Contractor	17
5.4	Notification of Property Owners by Contractor	18
5.5	Emergency Work Provided by Contractor.....	18
5.6	Damage Claims and Complaints Involving Contractor	18
6	References	19
7	Appendices	20
7.1	Appendix A – Lead Sheet Example.....	20
7.2	Appendix B – Completed Circuit Map Example.....	21

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

1 Introduction

1.1 Scope

This plan establishes how to clear vegetation from Vectren, A CenterPoint Energy Company (Vectren) electric transmission and distribution lines as well as rights-of-way (ROW). Clearing vegetation includes the trimming and cutting of trees, brush or other vegetation and disposing of the debris generated as described in this plan.

This plan identifies practices and procedures for electric facilities 200kV and below. For details on facilities 200kV and above, refer to **VEC-009 Transmission Vegetation Management Program (TVMP)**.

Work personnel are to be aware at all times of the electrical and physical characteristics of Vectren's electrical system before work is commenced. The electrical system shall remain energized during work activities, except when required by Vectren to safely perform tree work. All necessary and proper protective procedures and mechanical devices are to be utilized for the protection of work personnel and others.

Performing vegetation work should not interfere with the normal operation of Vectren's electrical system. No electrical outages should occur. All electrical outages caused by a Contractor are to be repaired at Contractor's expense. In rare cases, the electric line may be required to be de-energized by Vectren in order to safely perform the required tree work. Vectren shall inspect and determine if de-energizing the line is necessary. If Vectren determines that the electric line must be de-energized, then the electric line will be de-energized according to Distribution System Operations (DSO) or Transmission System Operations (TSO) protocols at a time convenient for Vectren and/or its customers. Vectren plans the work to minimize the duration of any required electrical outage.

Work assigned by Vectren is to be performed in accordance with the best recognized and approved arboricultural standards and in accordance with the Line Clearance Standards set forth in this plan. Any deviation from these standards requires prior written approval by Vectren. All work is to conform to the **ANSI A300 (Part 1) Pruning Standards, ANSI A300 (Part 7) Integrated Vegetation Management, ANSI Z133.1, Field Guide for Qualified Line Clearance Tree Workers** by Dr. Alex Shigo, **NESC Rule 218, International Society of Arboriculture Best Management Practices**.

Contractor employees are not to perform private tree work on properties located within five hundred (500) feet of any electrical system currently assigned to the Contractor without prior written approval from Vectren for that private work.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

1.2 Roles and Responsibilities

The Operations Gas & Electric Manager or designee implements the procedures in this document.

Contractors hired by Vectren and assigned to vegetation management follow the procedures in this document and complete the work plan.

1.3 Definitions

Brush: any vegetation with stems less than 6" diameter at breast height (DBH).

Contractor: A qualified vendor hired by Vectren to perform electric vegetation management

Distribution: 2400 volts to 12,470 volts

Landscaped Area: Property's maintained by property owners on a regular basis. Examples include yards, gardens, and

Lead Sheet: Documents generated by third-party work planner identifying work to be performed on each property by third party Contractor

Natural Area: Where facilities are installed cross country and the property is not regularly maintained by property owner. Locations can include fields, woodlands, and other Right-of-Ways

Permission Slip: Document signed by property owner granting permission for Tree removal

Side Trim: Side trimming is to remove all limbs overhanging the electric lines, shorten or completely remove side limbs that project toward the electric lines and, ideally, remove limbs below the electric lines that could project upward towards the lines.

Topping: This method of trimming is to be avoided because it creates the greatest potential for tree decay and rapid regrowth by weakly attached sprouts (suckers). Vectren is to be consulted prior to use of this method of trimming. It should only be performed whenever the tree is more or less directly under the line and does not have an adequate crown to perform a proper V-trim and/or the property owner vigorously objects to the removal of the tree or a V-trim.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Through Trim: Through trimming is the removal of limbs from the inner tree crown in order to make room for conductors. This type of trimming is utilized when the tree cannot be removed and other types of trimming are inappropriate. Through trimming is not permitted on three phase distribution primary lines in natural areas unless instructed on the Lead Sheet or requested by Vectren. Through trimming is not permitted on transmission lines.

Transmission: 69kV TO 200 kV on Vectren’s electrical system. See **VEC-009 Transmission Vegetation Management Program** for vegetation management procedures for 200 kV and above.

Tree: any vegetation with stems equal to or greater than 6” diameter at breast height (DBH).

Under Trim: Under trimming is to remove limbs back to the tree trunk or major limbs in order to provide line clearance below the tree crown. Under trimming is utilized when it is advantageous to leave structurally-sound overhanging limbs. Under trimming is not permitted on three phase distribution primary lines in natural areas unless indicated by the Lead Sheet or requested by Vectren. Under trimming is not permitted on transmission lines.

V-Trim: This may be the best method of trimming a tree that is located more or less directly under the lines and the property owner will not consent to it being removed. This method of trimming can minimize tree decay and regrowth into the wire zone. It also may be less harmful to the tree since a smaller portion of the crown is removed as compared to topping. This method is used to train the tree to grow away from the wire zone which should help minimize future trimming and tree injury.

 VECTREN A CenterPoint Energy Company	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

2 Line Clearance Standards

2.1 Clearance Distances

2.1.1 Electric Transmission

Clearance for transmission lines should allow for at least five years growth unless otherwise indicated in the Lead Sheet or requested by Vectren. The following tree clearances, at the time of trimming, for transmission voltages are to be the minimum acceptable clearances:

<i>Over Conductors</i>	
69 kV	138 kV
Not Permitted	Not Permitted

<i>Under Conductors</i>	
69 kV	138 kV
15 feet	20 feet

<i>Side of Conductors</i>	
69 kV	138 kV
15 feet	25 feet

Factors that must also be considered in addition to the above clearances are:

- a. Wind displacement of conductors and tree limbs
- b. All hazardous limbs that could break out due to wind, ice, or snow and damage Vectren facilities, excluding service drops, are to be removed
- c. Natural conductor sag during hot weather and heavy load conditions
- d. All overhanging limbs are to be removed
- e. Decayed trees/limbs or overhanging limbs that could fall into the line at line crossings, railroad crossings, and limited-access highway crossings. The crossing span and the adjoining span on each side of the crossing should be clear
- f. Limbs over three phase distribution lines in natural areas

2.1.2 Electric Distribution

Clearance for distribution primary conductors is to provide for at least five years' growth unless otherwise indicated by the Lead Sheet or requested by Vectren. Line clearances should take into consideration the characteristics of the locality, electrical facility, and the health of the tree. If unable to attain five years' growth of clearance, the following tree clearances, at the time of trimming, are the minimum acceptable clearances:

 VECTREN A CenterPoint Energy Company	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

<i>Over the Conductors</i>				
	All Vegetation	White Pines	All Other Evergreens	Deciduous Trees
Primary	N/A	See Note Below	8 feet	8 feet
Secondary	2 feet	N/A	N/A	N/A

<i>Side of Conductors</i>				
	All Vegetation	White Pines	All Other Evergreens	Deciduous Trees
Primary	N/A	5 feet	3 feet	5 feet
Secondary	1 foot	N/A	N/A	N/A

<i>Under the Conductors</i>				
	All Vegetation	White Pines	All Other Evergreens	Deciduous Trees
Primary	N/A	8 feet	8 feet	8 feet
Secondary	3 feet	N/A	N/A	N/A

<i>Clearance for All Transformers, Risers, and Associated Equipment</i>
6 feet

<i>Clearance for Service Drops from Primary Pole</i>
Up to 10 feet, as practicable

Note: Overhang by white pines is to be avoided due to a higher probability of breakage during heavy snow and ice conditions. If overhang remains, it is to include only structurally sound limbs that have been trimmed so that potential limb breakage is minimized. Length and weight of structurally sound overhanging limbs is to be reduced to further minimize the potential for breakage. Overhanging limbs are not to be less than 8 feet above the conductor.

 VECTREN A CenterPoint Energy Company	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Factors that must also be considered in addition to the above clearances are:

- a. Wind displacement of conductors and tree limbs
- b. All hazardous limbs that could break out due to wind, ice, or snow and damage Vectren facilities, excluding service drops, are to be removed
- c. Natural conductor sag during hot weather and heavy load conditions
- d. Decayed trees/limbs or overhanging limbs that could fall into the line at line crossings, railroad crossings, and limited-access highway crossings- the crossing span and the adjoining span on each side of the crossing should be clear
- e. Limbs over three phase distribution lines in natural areas

Overhanging limbs above conductors will be given attention and strategically removed over the course of multiple cycles. One example would be if there are three leads overhanging the conductors, remove the bottom lead in the current cycle; remove the top two leads in the next cycle. Structurally sound and healthy overhanging limbs may be permitted over single phase lines in inaccessible landscaped areas, with the exception of overhanging limbs of white pine trees, which are to be avoided. Limbs with a high potential for breaking or bending into distribution conductors by ice, snow or wind loading overhanging Vectren facilities are to be removed, lightened, or shortened regardless of the vertical distances between the conductor and the overhanging limb. All large deadwood, old branch stubs, diseased branches and broken branches overhanging or growing towards conductors are to be removed.

2.2 Clearance Procedures

Work is to conform to the **ANSI A300 (Part 1) Pruning Standards**, **ANSI A300 (Part 7) Integrated Vegetation Management**, **ANSI Z133.1, Field Guide for Qualified Line Clearance Tree Workers** by Dr. Alex Shigo, **NESC Rule 218**, and the **International Society of Arboriculture Best Management Practices**.

Vectren lines located on a common structure are to be cleared, in addition to the specific work assignment at that structure. This includes transmission lines as well as distribution primary and secondary lines.

2.2.1 Tree Trimming

Trees are to be trimmed to provide maximum practical clearance from conductors and to eliminate hazardous tree conditions that could damage Vectren facilities. To the extent practical, minimize tree damage by utilizing directional pruning techniques so that future trimming is minimized or eliminated. In addition to pruning, remove all structurally unsound hazard trees or eliminate the hazard.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

Depending on how the tree crown relates to the overhead line position determines the tree trimming method. Five common tree trimming methods are:

- a. v-trim,
- b. topping,
- c. side trim,
- d. under trim, and
- e. through trim.

Remove all severed limbs and branches caused by pruning around the Vectren facilities from each tree.

Climbing spurs may be used when climbing and pruning trees except in the following situations:

- a. Tree is dead.
- b. Icy or other conditions where climber safety would be jeopardized with use of spurs.

Mechanized trimming operations in rural natural areas are exempt from strict adherence to natural target, directional pruning as described in this plan. An effort should be made, however, to minimize excessive wounding of trees when utilizing these trimming methods.

Stumps are to be cut as close to the ground as possible and treated immediately with a stump control herbicide, unless such application would be detrimental to adjacent desirable vegetation or otherwise instructed on the Lead Sheet, prior customer agreement or requested by Vectren.

Trees and brush that have grown into fences should be cut as close to the fence as possible and any portion that has grown into the fence left. The remaining stems are to be treated with an herbicide to prevent regrowth unless such application would be detrimental to adjacent desirable vegetation or otherwise instructed on the Lead Sheet, prior customer agreement, or requested by Vectren.

2.2.2 Mowing

Mowing is to be performed on properties that meet all of the following criteria:

- a. The property is not suitable for herbicide spraying due to any of the following conditions:
 - i. The property owner will not allow herbicide spraying.
 - ii. The brush would impede the movement of a large truck within the easement due to its location, size, and density, i.e., a large truck could not drive through it.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

- iii. The dead brush would create an excessively unsightly condition in a landscaped area.
- iv. The brush is near an herbicide sensitive area.
- b. The property is accessible and traversable to a 4-wheel drive tractor and mower.
- c. The property is large enough to make it feasible to transport a tractor and mower to the job site rather than hand-cutting it.
- d. The average height of the brush is at least 6 feet unless a variation from such height is requested by Vectren.

All vegetation within the designated mowing area is to be mowed to a maximum height of six (6) inches above the ground line with an industrial-type mowing machine. The resultant smaller debris is to be left on the easement to provide natural mulch for revegetation and erosion control unless otherwise indicated on the Lead Sheet or requested by Vectren. Debris larger than four (4) inches in diameter is to be picked up and placed at the edge of the mowed area.

Any brush that cannot be mowed, and is located within the designated mowing area, is to be hand-cut as close to the ground as possible and immediately treated with a stump control herbicide unless such application would be detrimental to adjacent desirable vegetation or as otherwise indicated on the Lead Sheet, Permission Slip or as requested by Vectren.

See **Section 2.3.3.3 Mowing-Transmission** and **Section 2.3.4.3 Mowing-Distribution** for specific instructions.

2.2.3 Electric Transmission Clearance Procedures

Written permission from the property owner is not to be obtained when the right to perform the required work is granted by an easement.

2.2.3.1 Right of Way (ROW) Transmission Maintenance - Natural Areas

ROWs are to be cleared for the full ROW width using chemical, mechanical, or manual methods or any appropriate combination thereof, including:

- a. Structurally unsound hazard trees may be removed or the hazard eliminated.
- b. Structurally sound hazard trees may be removed or side-trimmed so that all branches meet the clearance requirements indicated in **Section 2.1.1 Electric Transmission**.
- c. If specific wood and debris disposal instructions are not indicated on the Lead Sheet, prior customer agreement or by direction

 VECTREN A CenterPoint Energy Company	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

from Vectren or the property owner, the wood and debris is to be disposed of in the most practical and economical manner. Generally, this would include mulching the debris. In cases where the terrain, environmental, or other conditions warrant, cut up the wood and debris to lie no greater than three (3) feet in height on the ground and placed near the edge of the ROW where it does not create an obstacle to accessing the facilities or the mowing/spraying of the ROW.

2.2.3.2 Right of Way (ROW) Transmission Maintenance - Landscaped Areas

If the entire ROW width cannot be cleared, the following guidelines are to be implemented:

- a. Excluding ROW carrying lines 200kV and above, trees and shrubs that are of species that do not exceed twenty (20) feet in height at maturity may be allowed in the portion of the ROW that is twenty-five (25) feet and greater from the pole centerline as long as they do not affect access to the electric facilities by repair vehicles.
- b. Structurally unsound hazard trees may be removed or the hazard eliminated.
- c. Structurally sound hazard trees may be removed or side-trimmed so that all branches meet the clearance requirements in **Section 2.1.1 Electric Transmission.**
- d. All trimming performed is to provide the clearances required in **Section 2.1.1 Electric Transmission.**
- e. All debris generated is to be hauled off unless the property owner requests otherwise.

2.2.3.3 Mowing – Transmission

Written permission is not to be obtained when Vectren has determined that an easement grants the right to perform the required work.

2.2.4 Electric Distribution Clearance Procedures

Except as otherwise addressed specifically in this plan, tree removals are to be performed only with prior written permission from the property owner or prior written authorization from Vectren. Brush that is under or near a utility's electrical facilities may be removed without the consent of the customer only when its removal is necessary for safe and reliable service.

Brush is to be trimmed only if the property owner refuses spraying, mowing or brush removal. Brush that is under or near a utility's electrical facilities may be

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

removed without the consent of the customer only when its removal is necessary for safe and reliable service.

2.2.4.1 Right of Way (ROW) Distribution Maintenance - Natural Areas

Vectren facilities that are adjacent to roads are to be kept clear by chemical, mechanical or manual methods or any appropriate combination thereof.

It is extremely important to keep Vectren facilities that are in rural natural areas and not adjacent to a road (e.g. cross-country facilities) clear in order to allow access and prevent tree-related outages. In these areas, the entire ROW width is to be kept clear through a combination of chemical, mechanical, or manual methods.

Structurally unsound hazard trees may be removed or their hazard eliminated. A structurally unsound hazard tree is a tree or part of a tree that is dead, dying, decaying, or otherwise presents an imminent risk of falling and is of such a height that it would contact electric facilities.

All trimming performed is to provide the clearances in **Section 2.1.2 Electric Distribution**.

2.2.4.2 Right of Way (ROW) Distribution Maintenance - Landscaped Areas

Vectren facilities in Landscaped Areas are to be maintained as described in **Section 2.1.2 Electric Distribution**.

If the entire ROW cannot be cleared, the following guidelines are to be implemented:

- a. Trim all trees to provide the clearances as indicated in **Section 2.1.2 Electric Distribution**.
- b. Structurally unsound hazard trees may be removed or the hazard eliminated.
- c. All debris generated by the ROW clearing work is to be hauled away and disposed of unless otherwise instructed by the property owner. When practical, an attempt to seek permission from the property owner to leave firewood-sized material and larger is expected.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

2.2.4.3 Mowing – Distribution

Locations are to be mowed only with prior written permission from the property owner or prior written authorization from Vectren.

2.3 Disposal Methods

Debris associated with routine maintenance, in a maintained area, shall be removed within three (3) calendar days or left on the property as agreed to in writing by the owner, absent intervening inclement weather that may pull crews from maintenance activities.

If the property owner requested wood and debris to be left with no specific debris disposal instructions, the unchipped wood and debris is cut up and left to lie no greater than three (3) feet in height on the ground and placed near the edge of the ROW where it does not obstruct accessing the facilities or the mowing/spraying of the easement. However, wood chips are to be provided to all property owners who request them, when reasonably possible.

If specific wood and debris disposal instructions are not indicated on the Lead Sheet, prior customer agreement, requested by the property owner or by Vectren, the wood and debris are disposed of based on the terrain-landscaped or natural. In landscaped areas, haul away and dispose of the wood and debris. For natural areas, dispose of the wood and debris in the most practical and economical manner. Generally, this includes mulching the debris. In cases where the terrain, environmental, or other conditions warrant, cut the wood and debris to lie no greater than three (3) feet in height on the ground and place near the edge of the ROW where it does not create an obstacle to accessing the facilities or the mowing/spraying of the ROW.

2.4 Hazardous Conditions

Hazardous conditions are to be made safe before leaving and whenever possible, removals are to be completed in one operation.

- a. Structurally unsound hazard trees may be removed or the hazard eliminated.
- b. Structurally sound hazard trees may be removed or trimmed to provide necessary clearances.

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

3 Electric Distribution

Vectren schedules distribution circuits for routine cycle trimming to occur on average in a range of every 3-6¹ calendar years or sooner as circumstances may require for good utility practice. Any maintenance or emergency trimming will occur as needed.

Prioritize scheduled circuit clearing by:

- a. Immediate tree threats
- b. 3-phase hot spots
- c. Special orders
- d. Maintenance orders

All scheduled circuit clearing is to begin at the feeding substation and continue from there with all work in an identified portion of the circuit completed before work is begun on any other portion of the circuit, unless Vectren requests otherwise. If more than one circuit on a property requires work, the required work is to be performed for each circuit.

4 Electric Transmission

Vectren inspects its electric Transmission system ROW at least once per calendar year and more frequently if conditions warrant. The inspection could be aerial, ground, electronic, etc. Considerations for more frequent inspections include, but are not limited to: changing conditions related to the environment, operational factors, weather conditions, and anticipated vegetation growth rates.

Manager, Gas & Electric Operations or designee prioritizes the findings from the inspection based on conditions and potential impact to electric facilities.

The Contractor is to inspect the area near the assigned work location for additional hazardous tree and brush conditions. The Contractor is to address these additional hazardous trees and brush conditions.

¹ Per Final Order of the Indiana Utility Regulatory Commission in Cause No. 43663 (2010).

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

5 Contractor

5.1 General Work Instructions for Contractor

Contractor's General Foreman inspects all work performed to ensure the contractor's work, industry trimming standards are being followed, work is completed as assigned, and documentation meets the requirements of this plan.

Contractor is to follow all instructions provided by Vectren verbally or on the Lead Sheets or Permission Slips. If a property owner refuses to allow work to be performed according to Vectren's plans or as indicated on the Lead Sheet or prior customer agreement, the Contractor is to notify Vectren immediately.

Contractors notifying property owners of upcoming vegetation management or performing vegetation management on behalf of Vectren shall carry identification and provide it to the customer upon request.

5.2 Contractor Supervision

The Contractor's General Foreman is required to keep in his/her assigned vehicle a small chainsaw, insulated pole saw and pole pruner with extensions to perform minor tree work when requested by Vectren. The General Foreman or designee is to be available by phone during off-hours for required emergency work.

5.3 Reporting by Contractor

When requested, the Contractor submits the following depending on the voltage of the line to Vectren listing all work performed.

Distribution:

- a. Lead Sheets
- b. Completed circuit map

Transmission:

- a. Work locations identify by transmission line number, pole number, and property address, if available
- b. Date(s) when Contractor notified property owner(s)
- c. Property owner's name
- d. Date(s) when work was completed on each property
- e. Type of work completed

 VECTREN <small>A CenterPoint Energy Company</small>	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

5.4 Notification of Property Owners by Contractor

Contractor is to notify the owners of properties at least two (2) calendar weeks prior to engaging in routine vegetation management.

- a. Notice must be provided by at least one attempt to contact the customer in person or via telephone call, and at least one attempt to contact shall include written notice.
- b. Written notice shall include, at a minimum, the form door hanger or letter provided to Contractor by Vectren.
- c. Except in situations of emergency or public safety, if a tree would have more than twenty-five percent (25%) of its canopy removed, the contractor shall do one (1) of the following actions:
 - i. Obtain consent from the property owner.
 - ii. If the property owner and Contractor cannot mutually agree on how the tree can be trimmed to provide sufficient clearance in order to maintain reliable electric service, the contractor shall either (a) remove the tree, at Vectren's expense, as long as Vectren has secured the requisite easements to allow its personnel onto the owner's property, or (b) inform the customer that it will need to make non-ANSI standards cuts in order to provide clearance.

5.5 Emergency Work Provided by Contractor

The Contractor is responsible for providing emergency work crews twenty-four (24) hours a day, seven (7) days a week, including holidays.

Contractor provides up to two (2) emergency work crews within a one (1) hour notice from Vectren. The Contractor also provides an adequate number of crews for storm restoration, twenty-four (24) hours a day, seven (7) days a week, including holidays.

In the case of emergency or public safety as determined by Vectren, the Contractor may, without customer consent, remove more than twenty-five percent (25%) of a tree or trim beyond existing easement or ROW boundaries in order to remedy the emergency or public safety situation.

5.6 Damage Claims and Complaints Involving Contractor

Contractor is to proactively resolve any potential complaints or damages and immediately notify Vectren of any damage claims and/or complaints in order to ensure that the claim or complaint is resolved appropriately and in a timely fashion.

	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

6 References

Referenced Documents Table

Document Name
VEC-009 Transmission Vegetation Management Program
NESC Rule 218
ANSI A300 (Part 1) Pruning Standards
ANSI A300 (Part 7) Integrated Vegetation Management
ANSI Z133.1
Field Guide for Qualified Line Clearance Tree Workers

	VEGETATION MANAGEMENT PLAN	Revision Number 1
VEC-047 Vegetation Management Program for Voltages Less Than 200 kV		

7 Appendices

7.1 Appendix A – Lead Sheet Example

Item #	Location	Address	Property Owner	Phone Number	Contact	Date	Work Code										Date Complete	Foreman Initials	Work Notes	Remarks
							MSLA	MULCH	RB	RV	STWA-BU	STWA-CC	STWA-IDM	STWA-RO	TA	TI				
1	CO RD 800 (West of Sub Station)	726 W CR 800 S			DH	30-Mar			50						1		10-Apr	WL	B18	
2	CO RD 800	744 W CR 800 S			PC	30-Mar									3		10-Apr	WL	B18	
3	CO RD 800	760 W CR 800 S		(812)753-9137	PC	3/30/2017									1		10-Apr	WL	B18	DO NOT BUTCHER!!! Slope away from Line!!!...NEXT, turn L on CR 100 and continue!!
4	CO RD 100	1021 W CR 800 S			DH	3/30/2017									1		10-Apr	WL	B18	
5	CO RD 100	8157 S CR 100 W			PC	30-Mar			100						2		10-Apr	WL	B18	NEXT, back to CO RD 800, turn L and continue!!! (Tap to the L-L span)
6	CO RD 800	8016 S Victoria Dr			DH	3/31/2017									1		10-Apr	WL	B18	PINE...NEXT, turn L on CO RD 175 and line is clear, keep going after line ends!! Line picks up, turn L on CO RD 225 and continue!!
7	CO RD 225	2211 W CR 850 S			DH	3/31/2017				1					3		10-Apr	WL	B18	Opposite side of line!
8	CO RD 225	8885 S 350 W			DH	3/31/2017			400								10-Apr	WL	B18	This runs all the way to brick house on L!!
9	CO RD 225	SAME			DH	3/31/2017			550								10-Apr	WL	B18	This item starts @ grey house (on L) and runs to creek!!!...NEXT, turn R on CO RD 950 and continue!
10	CO RD 950				DH	3/31/2017			100						4		11-Apr	WL	B18	NEXT, turn L on CO RD 250 and continue!
11	CO RD 250	9701 S 250 W			PC	31-Mar									1	5	11-Apr	WL	B18	
12	CO RD 250	SAME			PC	3/31/2017										2	11-Apr	WL	B18	PINES...NEXT, turn L on CO RD 1000 and continue!
13	CO RD 1000	2504/2472 W 1000 S			DH	3/31/2017									1		11-Apr	WL	B18	This is the RD we dump on!!!...NEXT, back to CO RD 250, turn L and continue!...CO RD 250, curves around and turns into CO RD 1025!!
14	CO RD 1025	2497 W 1025 S			PC	3/31/2017			200								11-Apr	WL	B18	Clear Pole...HAS A MEAN DOG, so just ring doorbell to let him know you are there!!!...NEXT, follow CR 250 back to CR 950, turn L and continue, line is clear to where it stops, but keep going and line will pick up!!
15	CO RD 950	3480 W 950 S			PC	31-Mar									2		12-Apr	WL	B18	NEXT, curves around and turns into CO RD 350!
16	CO RD 350	SAME			PC	3/31/2017									3		12-Apr	WL	B18	
17	CO RD 350	SAME			PC	3/31/2017			300						2		12-Apr	WL	B18	
18	CO RD 350/CO RD 925				DH	3/31/2017									1		12-Apr	WL	B18	NEXT, Turn L ON CO RD 925, and continue!!
19	CO RD 925	Mt Moriah Cemetery Assoc.				3/31/2017	1								1		12-Apr	WL	B18	Opposite Side of line!
20	CO RD 925	3800 W 925 S			DH	3/31/2017									1		12-Apr	WL	B18	This is where line switches sides of road!!!...CO RD 925 curves into CO RD 400!!
21	CO RD 400					3/31/2017				1					3		12-Apr	WL	B18	Opposite Side of line!
22	CO RD 400	9785 S 400 W			DH	3/31/2017									1		11-Apr	DO	B7	

*Property Owner names removed

