



Filing Receipt

Filing Date - 2024-07-29 08:00:39 PM

Control Number - 56822

Item Number - 8



Control Number: 41381



Item Number: 5

Addendum StartPage: 0

PROJECT NO. 41381

ANNUAL VEGETATION § PUBLIC UTILITY COMMISSION
MANAGEMENT PLANS AND §
REPORTS PURSUANT TO P.U.C. § OF TEXAS
SUBST. R. §25.96 §

VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96

Contact: DeAnn T. Walker
Telephone: 512-397-3032
Fax: 512-397-3050
deann.walker@CenterPointEnergy.com

Table of Contents

2013 MAY - 1 PM 1:06
POLLING PLACE CLOSED

Pleading..... 2
Attachment A - Report..... 3
P.U.C. Subst. R. 25.96(d)..... 4
P.U.C. Subst. R. 25.96(e)(1)..... 5
P.U.C. Subst. R. 25.96(e)(2)..... 7
P.U.C. Subst. R. 25.96(e)(3)..... 7
P.U.C. Subst. R. 25.96(e)(4)..... 8
P.U.C. Subst. R. 25.96(e)(5)..... 8
P.U.C. Subst. R. 25.96(e)(6)..... 9
P.U.C. Subst. R. 25.96(e)(7)..... 9
P.U.C. Subst. R. 25.96(f)(1)(A)..... 11
P.U.C. Subst. R. 25.96(f)(1)(B)..... 11
P.U.C. Subst. R. 25.96(f)(1)(C)..... 12
P.U.C. Subst. R. 25.96(f)(1)(D)..... 13
P.U.C. Subst. R. 25.96(f)(1)(E)..... 13
P.U.C. Subst. R. 25.96(f)(1)(F)..... 13
P.U.C. Subst. R. 25.96(f)(1)(G)..... 13
P.U.C. Subst. R. 25.96(f)(1)(H)..... 14
P.U.C. Subst. R. 25.96(f)(1)(I)..... 14
P.U.C. Subst. R. 25.96(f)(2)..... 14

PROJECT NO. 41381

**ANNUAL VEGETATION
MANAGEMENT PLANS AND
REPORTS PURSUANT TO P.U.C.
SUBST. R. §25.96**

§
§
§
§

**PUBLIC UTILITY COMMISSION

OF TEXAS**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Pursuant to P.U.C. Subst. R. 25.96, CenterPoint Energy Houston Electric, LLC submits the attached summary of its vegetation management plan to the Public Utility Commission of Texas.

Respectfully submitted,



SCOTT E. ROZZELL
Executive Vice President and General Counsel
State Bar No. 17359800
DEANN T. WALKER
State Bar No. 20696840
1005 Congress, Suite 650
Austin, Texas 78701
(512) 397-3032
(512) 397-3050 (fax)

ATTORNEYS FOR CENTERPOINT ENERGY

ATTACHMENT A

**Vegetation Management Report
For 2012**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
FOR 2012**

Introduction

P.U.C. Subst. R. 25.96 requires each utility to file with the Public Utility Commission of Texas (“the Commission”) by May 1st of each year a summary of its Vegetation Management Plan (“Plan”) for the current calendar year and its progress in implementing its Plan for the preceding calendar year. CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or “the Company”) submits the following summary of its vegetation management plan pursuant to the Commission’s rules.

I. P.U.C. Subst. R. 25.96(d)

P.U.C. Subst. R. 25.96(d) requires each utility to provide an explanation in the utility’s annual report of deviations from several mandatory provisions in national standards. The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(d)(1)

ANSI Standard Z133.1, Arboricultural Operations – Pruning, or successor standard.

CenterPoint Energy’s vegetation management policies contractually require its contractors to abide by all mandatory provisions. Therefore, CenterPoint Energy does not have any deviations from the provisions of ANSI Standard Z133.1.

B. P.U.C. Subst. R. 25.96(d)(2)

ANSI Standard A300 (Part 1), Tree Shrub, and Other Woody Plant Management – Standard Practices (Pruning); (Part 7), Integrated Vegetation Management a. Utility Rights-of Way practices; and (Part 9), Tree Risk Assessment a. Tree Structure Assessment, or successor standards.

CenterPoint Energy’s vegetation management policies contractually require its contractors to abide by all mandatory provisions of Parts 1 and 9 of ANSI A300. CenterPoint Energy’s vegetation management policies for distribution facilities do not conform to all

provisions of Part 7 of ANSI A300. Due the numerous site alternatives in urban, suburban, or rural settings with limited utility control of long-term actions of the various stakeholders and utility rights unique for each site, full implementation is not practical due to the costs involved. However, various methods for specific situations may be utilized as appropriate to achieve limited objectives.

C. P.U.C. Subst. R. 25.96(d)(3)

National Electrical Safety Code Section 218, or successor standard.

CenterPoint Energy does not have any deviations from the provisions of Section 218 of the National Electrical Safety Code (“NESC”).

II. P.U.C. Subst. R. 25.96(e)

P.U.C. Subst. R. 25.96 requires each utility to maintain a Plan that “describes the utility’s objectives, practices, procedures, and work specifications for its distribution assets.” The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(e)(1)

Tree pruning methodology, trimming clearances, and scheduling approach.

- Methodology

CenterPoint Energy’s vegetation management program for the distribution system utilizes an “on-cycle” approach to proactive tree trimming. The strategy is to trim all circuits on a three or five calendar year cycle as determined by the calendar year when the circuit was last trimmed. The Company’s goal is to trim all 35 kV circuits and those 12 kV circuits with narrow easements or restricted access on a three year cycle, and all 12 kV circuits with normal easements on a five year cycle. All laterals along with the feeder-main are trimmed on any circuit identified for trimming.

Approximately 75% of the circuit vegetation management work is on a fixed price basis with the remainder of the costs on a time and equipment basis. Fixed price work is primarily allocated to circuits with extensive feeder and lateral networks that are in outlying areas of the

system or that are otherwise conducive to fixed price bids. Time and equipment work is allocated strategically for smaller circuits, which include those circuits close to contractor parking locations, those with problems that require quicker action than a bid process will allow, and for other situations not conducive to fixed price bids.

The vegetation management personnel at CenterPoint Energy prepare work maps of circuits identified for fixed price work. Once completed, these maps as well as trimming specifications are released to the contractors for field review. The contractors submit bids to complete all tree trimming on the circuit. The vegetation management personnel review the bids and award the work to the best valued provider based on pricing, available resource capacity, and performance as determined from previous performance audits of the contractors' completed work. When the work is completed, the CenterPoint Energy forester inspects the job to ensure that it was completed satisfactorily and reviews the invoices to ensure accuracy. CenterPoint Energy foresters and contractors interface with the customers as needed to resolve issues and facilitate completion of the work.

Distribution vegetation management work is administered and coordinated by a staff of one manager, nine degreed foresters and one compliance specialist. Currently, six professional Line Clearance contractors perform utility tree trimming services for CenterPoint Energy.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on all poles and down guys.

- **Scheduling**

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on a three-year or five-year cycle. The plan is established based on those circuits last maintained in the previous three or five years. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the contractors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

B. P.U.C. Subst. R. 25.96(e)(2)

Methods used to mitigate threats posed by vegetation to applicable distribution assets.

Unscheduled or reactive tree trim maintenance is performed by CenterPoint Energy to address vegetation issues that require immediate attention. This work is done in response to specific requests from customers or CenterPoint Energy personnel located at the Service Centers. Customer requests are received by CenterPoint Energy personnel and routed to assigned contractors for inspection to ensure validity. If valid, the trees are trimmed or removed to clearance specifications. Contractors also receive work orders directly from the Service Centers and conduct work per standard line clearance specifications or specific instructions on the work request. Most reactive work is performed on a unit-priced basis.

C. P.U.C. Subst. R. 25.96(e)(3)

Tree risk management program.

In addition to those hazard trees identified and removed as part of scheduled and unscheduled circuit maintenance, CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees

impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

D. P.U.C. Subst. R. 25.96(e)(4)

Participation in continuing education by the utility's internal vegetation management personnel.

Most of CenterPoint Energy's utility vegetation management personnel are degreed foresters or otherwise degreed with extensive experience within the utility vegetation management industry. All of the foresters maintain Texas Department of Agriculture Non-Commercial Pesticide Applicator licenses that require ongoing annual continuing education units. Several of the foresters independently maintain International Society of Arboriculture Certified Arborist status. The Company does not require this status due to the formal educational requirements for the positions; however, those foresters that maintain their certifications are supported in acquiring any necessary continuing education units related to the work. The foresters also attend various industry related professional conferences, seminars, and training as available and beneficial to support educational development associated with vegetation management.

E. P.U.C. Subst. R. 25.96(e)(5)

Estimate of the miles of circuits along which vegetation is to be trimmed or method for planning trimming work for the coming year.

CenterPoint Energy estimates that approximately 5,200 miles of distribution circuits will be trimmed during 2013. This mileage estimate is derived by adding the mileage of each of the circuits contained within the circuit trim list for the year. The sum of the total mileage for the circuits to be trimmed in a given year will vary.

F. P.U.C. Subst. R. 25.96(e)(6)

Plan to remediate vegetation-caused issues on feeders which are on the worst vegetation-caused performing feeder list for the preceding calendar year's System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

G. P.U.C. Subst. R. 25.96(e)(7)

Customer education, notification, and outreach practices related to vegetation management.

CenterPoint Energy utilizes customer notifications and public awareness campaign strategies to provide customer education and notifications related to vegetation management. CenterPoint Energy intends to continue these efforts in the next five years.

- Customer Notifications of Work to be Performed

CenterPoint Energy contractors are required to distribute customer notification door cards at residences and businesses at least five days prior to planned tree pruning activities. CenterPoint Energy's door hanger notification is available to the Commission Staff upon request. It includes the contractor's contact information to allow the customer to set an appointment to provide access, discuss planned work activities and concerns, and arrange to be present while work is done. CenterPoint Energy also provides a *Tree Trimming Practices* brochure with the work notification door card. The brochure is available to the Commission Staff upon request. It explains general practices and responses to frequently asked questions. These two items are the primary method of pre-work notification.

The brochure has been a successful tool for answering questions and providing the public with an educational visual aid. Employees and contractors have reported a reduction in complaints and questions from home and business owners in the areas when they receive the door card and brochure. In addition, CenterPoint Energy provides a *Palm Trees* brochure selectively to those customers with palm trees explaining issues unique to palms and power lines. These brochures and the door card provide significant information to the recipient, while also

pointing them to additional information on the CenterPointEnergy.com/trees website. CenterPoint Energy believes that these documents aide in setting expectations to minimize misconceptions and prompts discussions of any concerns before the work is performed.

- Non-Print Media Used in Public Education Campaign

CenterPoint Energy utilizes a landing page on its website dedicated to vegetation management, which can be found at CenterPointEnergy.com/trees. This section of the main CenterPoint Energy website provides information on tree planting guides, plant and trim trees safely, power line friendly trees, Right Tree Right Place information, energy saving tips, vegetation management practices, frequently asked questions, the *Tree Trimming Practices*, *Palm Trees and Power Lines* brochures, and information on tree trimming contractors. Examples of information available from these sites include Power Line Clearance Standards, Recommended List of Low Growing Trees, and What My Pruned Trees Will Look Like. Each public education tool warns the public to use caution when pruning trees around power lines and to plant the right tree in the right place, which is away from power lines.

- Other Media Events

CenterPoint Energy partners with a number of parks, community groups, and other organizations around the Greater Houston area for tree planting events, which replace potentially hazardous trees near power lines with low-growing, power line-friendly trees. The events garner involvement from local parks and recreation departments, government officials and rotary clubs, as well as interested civilians in the communities. The resulting media coverage, community relationships, dissemination of collateral material, and permanent park signage help to reinforce the Right Tree Right Place message long after the completion of the event.

During 2012, CenterPoint Energy partnered with Trees for Houston to establish a Right Tree Right Place nursery on Company property as a source of low-growing power line compatible tree species for various events. The objectives are to further enhance key customer relationships, provide successful growing stock as examples of power line “friendly” trees, and build employee engagement.

CenterPoint Energy’s Speakers Bureau sends employee volunteers to area civic associations to make presentations about vegetation management and provide materials. Upon

request, employees who work directly with vegetation management and electric operations also make similar presentations at meetings for municipal officials, homeowner's associations, landscape architects, builders, or other community groups.

CenterPoint Energy has press releases several times throughout the year soliciting media coverage of key Right Tree Right Place information, especially around Arbor Day and Earth Day. Each year the Company publicizes the Treeline USA designation to Houston-area media and through the Company's internal publications. Right Tree Right Place information also is included in sponsorship advertising during Houston Astros and Rockets games.

III. P.U.C. Subst. R. 25.96(f)(1)

P.U.C. Subst. R. 25.96 requires each utility to file a Vegetation Management Plan Report that summarizes its Plan and provides progress in implements the Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C. Subst. R. 25.96(f)(1)(A)

Vegetation maintenance goals and the method the utility employs to measure its progress.

CenterPoint Energy's vegetation management program for the distribution system utilizes an "on-cycle" approach to proactive tree trimming. The strategy is to trim all circuits on a three or five calendar year cycle as determined by the calendar year when the circuit was last trimmed. The Company's goal is to trim all 35 kV circuits and those 12 kV circuits with narrow easements or restricted access on a three year cycle, and all 12 kV circuits with normal easements on a five year cycle. All laterals along with the feeder-main are trimmed on any circuit identified for trimming. The Company measures its progress by the number of circuits that are out-of-cycle at the close of the calendar year.

B. P.U.C. Subst. R. 25.96(f)(1)(B)

Trimming clearances and scheduling approach.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed

vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on all poles and down guys.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on a three-year or five-year cycle. The plan is established based on those circuits last maintained in the previous three or five years. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the contractors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

C. P.U.C. Subst. R. 25.96(f)(1)(C)

Plan to remediate vegetation-caused issues on feeders that are on the vegetation-caused worst performing feeder list for the preceding calendar year's SAIDI and SAIFI.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(1)(D)

Tree risk management program.

CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

E. P.U.C. Subst. R. 25.96(f)(1)(E)

Approach to monitoring, preparing for and responding to adverse environmental conditions such as drought and wildfire danger that may impact its vegetation management policies and practices.

CenterPoint Energy does not have a specific drought and wildfire danger plan. However, the Company continuously monitors and adjusts plans as needed for adverse conditions to address impacts unique to nature of the occurrences. This includes updating and maintaining mutual assistance contracts with vegetation management contractors to supplement current resources if conditions require.

F. P.U.C. Subst. R. 25.96(f)(1)(F)

Total overhead distribution miles in its system, excluding service drops.

As of year-end 2012, CenterPoint Energy has 27,183 miles of overhead distribution lines. This includes 12 kV and 35 kV overhead feeder-main and laterals and secondary conductor, excluding service drops.

G. P.U.C. Subst. R. 25.96(f)(1)(G)

Total number of electric points of delivery.

As of December 30, 2012, CenterPoint Energy had 2,401,187 electric points of delivery.

H. P.U.C. Subst. R. 25.96(f)(1)(H)

Amount of vegetation-related work it plans to accomplish in the current calendar year to achieve its vegetation management goals described in subparagraph (A) of this paragraph.

During 2013, CenterPoint Energy plans to proactively trim 260 circuits that are identified in the Company's work plan.

I. P.U.C. Subst. R. 25.96(f)(1)(I)

Vegetation management budget, divided into the categories listed in clauses (i)-(iv) of this subparagraph. The utility should, within the confines of its own budgeting practices, assign subcategories and list them under these categories where appropriate. If a utility does not budget amounts under any specific category, the utility shall provide a brief explanation of why it does not do so. The utility shall title the budget with the dates it covers and provide a total for each category or subcategory.

Distribution Vegetation Management Budget for January 1, 2013 – December 30, 2013

(i) Scheduled Vegetation Maintenance (Proactive Tree Trimming)	\$20,500,000
(ii) Unscheduled Vegetation Maintenance (Reactive Tree Trimming/Removal)	\$5,121,000
(iii) Tree Risk Management (Proactive Hazard Tree Removal)	\$3,250,000
(iv) Emergency and Post Storm Activities	\$503,000
Total	\$29,374,000

IV. P.U.C. Subst. R. 25.96(f)(2)

P.U.C. Subst. R. 25.96(f)(2) requires each utility to file an implementation summary for the preceding year of its Plan. However, the rule provides that the information for this subsection is not required for the Report to be filed on May 1, 2013.



Control Number: 41381



Item Number: 12

Addendum StartPage: 0

PROJECT NO. 41381

**REPORT FOR VEGETATION
MANAGEMENT PLAN PURSUANT TO
P.U.C. SUBST. R. §25.96**

§
§
§

**PUBLIC UTILITY COMMISSION
OF TEXAS**

11/15/11 9:02

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Contact: DeAnn T. Walker
Telephone: 512-397-3032
Fax: 512-397-3050
deann.walker@CenterPointEnergy.com

Table of Contents

	Page
Pleading.....	2
Attachment A - Report.....	3
P.U.C. Subst. R. 25.96(d).....	4
P.U.C. Subst. R. 25.96(e)(1).....	5
P.U.C. Subst. R. 25.96(e)(2).....	7
P.U.C. Subst. R. 25.96(e)(3).....	7
P.U.C. Subst. R. 25.96(e)(4).....	8
P.U.C. Subst. R. 25.96(e)(5).....	8
P.U.C. Subst. R. 25.96(e)(6).....	9
P.U.C. Subst. R. 25.96(e)(7).....	9
P.U.C. Subst. R. 25.96(f)(1).....	11
P.U.C. Subst. R. 25.96(f)(2).....	15

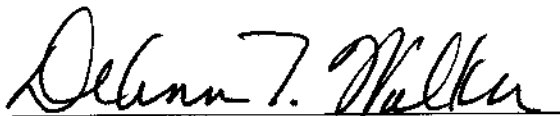
PROJECT NO. 41381

REPORT FOR VEGETATION § PUBLIC UTILITY COMMISSION
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 § OF TEXAS

VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96

Pursuant to P.U.C. Subst. R. 25.96, CenterPoint Energy Houston Electric, LLC submits the attached summary of its vegetation management plan to the Public Utility Commission of Texas.

Respectfully submitted,



SCOTT E. ROZZELL
Executive Vice President and General Counsel
State Bar No. 17359800
DEANN T. WALKER
State Bar No. 20696840
1005 Congress, Suite 650
Austin, Texas 78701
(512) 397-3032
(512) 397-3050 (fax)

ATTORNEYS FOR CENTERPOINT ENERGY

ATTACHMENT A

Vegetation Management Report
Submitted May 1, 2014

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
FOR 2014**

Introduction

P.U.C. Subst. R. 25.96 requires each utility to file with the Public Utility Commission of Texas (“the Commission”) by May 1st of each year a summary of its Vegetation Management Plan (“Plan”) for the current calendar year and its progress in implementing its Plan for the preceding calendar year. CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or “the Company”) submits the following summary of its vegetation management plan pursuant to the Commission’s rules.

I. P.U.C. Subst. R. 25.96(d)

P.U.C. Subst. R. 25.96(d) requires each utility to provide an explanation in the utility’s annual report of deviations from several mandatory provisions in national standards. The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(d)(1)

ANSI Standard Z133.1, Arboricultural Operations – Pruning, or successor standard.

CenterPoint Energy’s vegetation management policies contractually require its contractors to abide by all mandatory provisions. Therefore, CenterPoint Energy does not have any deviations from the provisions of ANSI Standard Z133.1.

B. P.U.C. Subst. R. 25.96(d)(2)

ANSI Standard A300 (Part 1), Tree Shrub, and Other Woody Plant Management – Standard Practices (Pruning); (Part 7), Integrated Vegetation Management a. Utility Rights-of Way practices; and (Part 9), Tree Risk Assessment a. Tree Structure Assessment, or successor standards.

CenterPoint Energy’s vegetation management policies contractually require its contractors to abide by all mandatory provisions of Parts 1 and 9 of ANSI A300. CenterPoint Energy’s vegetation management policies for distribution facilities do not conform to all

provisions of Part 7 of ANSI A300. Due to the numerous site alternatives in urban, suburban, or rural settings with limited utility control of long-term actions of the various stakeholders and utility rights unique for each site, full implementation is not practical due to the costs involved. However, various methods for specific situations may be utilized as appropriate to achieve limited objectives.

C. P.U.C. Subst. R. 25.96(d)(3)

National Electrical Safety Code Section 218, or successor standard.

CenterPoint Energy does not have any deviations from the provisions of Section 218 of the National Electrical Safety Code (“NESC”).

II. P.U.C. Subst. R. 25.96(e)

P.U.C. Subst. R. 25.96 requires each utility to maintain a Plan that “describes the utility’s objectives, practices, procedures, and work specifications for its distribution assets.” The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(e)(1)

Tree pruning methodology, trimming clearances, and scheduling approach.

- Methodology

CenterPoint Energy’s vegetation management program for the distribution system utilizes an “on-cycle” approach to proactive tree trimming. The Company’s strategy is to trim 35 kV circuits and those 12 kV circuits with narrow easements or restricted access on a three year cycle, and 12 kV circuits with normal easements on a five year cycle. Laterals along with the feeder-main are trimmed on any circuit identified for trimming.

Approximately 75% of the circuit vegetation management work is on a fixed price basis with the remainder of the costs on a time and equipment basis. Fixed price work is primarily allocated to circuits with extensive feeder and lateral networks that are in outlying areas of the system or that are otherwise conducive to fixed price bids. Time and equipment work is allocated strategically for smaller circuits, which include those circuits close to contractor

parking locations, those with problems that require quicker action than a bid process will allow, and for other situations not conducive to fixed price bids.

The vegetation management personnel at CenterPoint Energy prepare work maps of circuits identified for fixed price work. Once completed, these maps as well as trimming specifications are released to the contractors for field review. The contractors submit bids to complete tree trimming on the circuit. The vegetation management personnel review the bids and award the work to the best valued provider based on pricing, available resource capacity, and performance as determined from previous performance audits of the contractors' completed work. When the work is completed, the CenterPoint Energy forester inspects the job to ensure that it was completed satisfactorily and reviews the invoices to ensure accuracy. CenterPoint Energy foresters and contractors interface with the customers as needed to resolve issues and facilitate completion of the work.

Distribution vegetation management work is administered and coordinated by a staff of one manager, nine professional utility foresters, one compliance specialist, and one support analyst. Currently, six professional Line Clearance contractors perform utility tree trimming services for CenterPoint Energy.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the contractors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

B. P.U.C. Subst. R. 25.96(e)(2)

Methods used to mitigate threats posed by vegetation to applicable distribution assets.

Unscheduled or reactive tree trim maintenance is performed by CenterPoint Energy to address vegetation issues that require immediate attention. This work is done in response to specific requests from customers or CenterPoint Energy personnel located at the Service Centers. Customer requests are received by CenterPoint Energy personnel and routed to assigned contractors for inspection to ensure validity. If valid, the trees are trimmed or removed to clearance specifications. Contractors also receive work orders directly from the Service Centers and conduct work per standard line clearance specifications or specific instructions on the work request. Most reactive work is performed on a unit-priced basis.

C. P.U.C. Subst. R. 25.96(e)(3)

Tree risk management program.

In addition to those hazard trees identified and removed as part of scheduled and unscheduled circuit maintenance, CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees

impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

D. P.U.C. Subst. R. 25.96(e)(4)

Participation in continuing education by the utility's internal vegetation management personnel.

Most of CenterPoint Energy's utility vegetation management personnel are degreed foresters or otherwise degreed with extensive experience within the utility vegetation management industry. Company foresters are expected to maintain Texas Department of Agriculture Non-Commercial Pesticide Applicator licenses that require ongoing annual continuing education units. Several of the foresters independently maintain International Society of Arboriculture Certified Arborist status. The Company does not require this status due to the formal educational requirements for the positions; however, those foresters that maintain their certifications are supported in acquiring any necessary continuing education units related to the work. The foresters also attend various industry related professional conferences, seminars, and training as available and beneficial to support educational development associated with vegetation management.

E. P.U.C. Subst. R. 25.96(e)(5)

Estimate of the miles of circuits along which vegetation is to be trimmed or method for planning trimming work for the coming year.

CenterPoint Energy estimates that approximately 5,500 miles of distribution circuits will be trimmed during 2014. This mileage estimate is derived by averaging the circuit mileage to complete all planned distribution circuits within the three and five year cycles. The sum of the total mileage for the circuits to be trimmed in a given year will vary.

F. P.U.C. Subst. R. 25.96(e)(6)

Plan to remediate vegetation-caused issues on feeders which are on the worst vegetation-caused performing feeder list for the preceding calendar year's System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

G. P.U.C. Subst. R. 25.96(e)(7)

Customer education, notification, and outreach practices related to vegetation management.

CenterPoint Energy utilizes customer notifications and public awareness campaign strategies to provide customer education and notifications related to vegetation management. CenterPoint Energy intends to continue these efforts.

- Customer Notifications of Work to be Performed

CenterPoint Energy contractors are required to distribute customer notification door cards at residences and businesses at least five days prior to planned tree pruning activities. CenterPoint Energy's door hanger notification is available to the Commission Staff upon request. It includes the contractor's contact information to allow the customer to set an appointment to provide access, discuss planned work activities and concerns, and arrange to be present while work is done. CenterPoint Energy also provides a *Tree Trimming Practices* brochure with the work notification door card. The brochure is available to the Commission Staff upon request. It explains general practices and responses to frequently asked questions. These two items are the primary method of pre-work notification.

The brochure has been a successful tool for answering questions and providing the public with an educational visual aid. Employees and contractors have reported a reduction in complaints and questions from home and business owners in the areas when they receive the door card and brochure. In addition, CenterPoint Energy provides a *Palm Trees* brochure selectively to those customers with palm trees explaining issues unique to palms and power lines. These brochures and the door card provide significant information to the recipient, while also

pointing them to additional information on the CenterPointEnergy.com/trees website. CenterPoint Energy believes that these documents aide in setting expectations to minimize misconceptions and prompts discussions of any concerns before the work is performed.

- Non-Print Media Used in Public Education Campaign

CenterPoint Energy utilizes a landing page on its website dedicated to vegetation management, which can be found at CenterPointEnergy.com/trees. This section of the main CenterPoint Energy website provides information on tree planting guides, plant and trim trees safely, power line friendly trees, Right Tree Right Place information, energy saving tips, vegetation management practices, frequently asked questions, the *Tree Trimming Practices*, *Palm Trees and Power Lines* brochures, and information on tree trimming contractors. Examples of information available from these sites include Power Line Clearance Standards, Recommended List of Low Growing Trees, and What My Pruned Trees Will Look Like. Each public education tool warns the public to use caution when pruning trees around power lines and to plant the right tree in the right place, which is away from power lines.

- Other Media Events

CenterPoint Energy partners with a number of parks, community groups, and other organizations around the Greater Houston area for tree planting events, which replace potentially hazardous trees near power lines with low-growing, power line-friendly trees. The events garner involvement from local parks and recreation departments, government officials and rotary clubs, as well as interested citizens in the communities. The resulting media coverage, community relationships, dissemination of collateral material, and permanent park signage help to reinforce the Right Tree Right Place message long after the completion of the event.

CenterPoint Energy has partnered with Trees for Houston to establish a Right Tree Right Place nursery on Company property as a source of low-growing power line compatible tree species for various events. The objectives are to further enhance key customer relationships, provide successful growing stock as examples of power line “friendly” trees, and build employee engagement.

CenterPoint Energy’s Speakers Bureau sends employee volunteers to area civic associations to make presentations about vegetation management and provide materials. Upon

request, employees who work directly with vegetation management and electric operations also make similar presentations at meetings for municipal officials, homeowner's associations, landscape architects, builders, or other community groups.

CenterPoint Energy has press releases several times throughout the year soliciting media coverage of key Right Tree Right Place information, especially around Arbor Day and Earth Day. Each year the Company publicizes the Treeline USA designation to Houston-area media and through the Company's internal publications.

III. P.U.C. Subst. R. 25.96(f)(1)

P.U.C. Subst. R. 25.96 requires each utility to file a Vegetation Management Plan Report that summarizes its Plan and provide its progress in implementing the Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C. Subst. R. 25.96(f)(1)(A)

Vegetation maintenance goals and the method the utility employs to measure its progress.

CenterPoint Energy's vegetation management program for the distribution system utilizes an "on-cycle" approach to proactive tree trimming. The Company's vegetation maintenance strategy is to proactively trim the distribution system on a three or five year cycle depending on circuit voltage, circuit type, and location. CenterPoint Energy has approximately 21,000 miles of distribution circuits that require vegetation maintenance. The Company's goal is to target between an estimated 4,500 to 6,500 miles of distribution circuits annually to proactively maintain vegetation clearance on the distribution system. Circuit and circuit section data is analyzed to determine the circuit trim plan mileage, which will vary each year. CenterPoint Energy plans to maintain an on-cycle circuit trim rate greater than or equal to 98% for distribution circuits.

B. P.U.C. Subst. R. 25.96(f)(1)(B)

Trimming clearances and scheduling approach.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on all poles and down guys.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the contractors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

C. P.U.C. Subst. R. 25.96(f)(1)(C)

Plan to remediate vegetation-caused issues on feeders that are on the vegetation-caused worst performing feeder list for the preceding calendar year's SAIDI and SAIFI.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(1)(D)

Tree risk management program.

CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

E. P.U.C. Subst. R. 25.96(f)(1)(E)

Approach to monitoring, preparing for and responding to adverse environmental conditions such as drought and wildfire danger that may impact its vegetation management policies and practices.

CenterPoint Energy does not have a specific drought and wildfire danger plan. However, the Company continuously monitors and adjusts plans as needed for adverse conditions to address impacts unique to nature of the occurrences. This includes updating and maintaining mutual assistance contracts with vegetation management contractors to supplement current resources if conditions require.

F. P.U.C. Subst. R. 25.96(f)(1)(F)

Total overhead distribution miles in its system, excluding service drops.

As of December 31, 2013, CenterPoint Energy has 27,276 miles of overhead distribution lines. This includes 12 kV and 35 kV overhead feeder-main, laterals, and secondary conductor, excluding service drops.

G. P.U.C. Subst. R. 25.96(f)(1)(G)

Total number of electric points of delivery.

As of December 31, 2013, CenterPoint Energy has 2,436,565 electric points of delivery.

H. P.U.C. Subst. R. 25.96(f)(1)(H)

Amount of vegetation-related work it plans to accomplish in the current calendar year to achieve its vegetation management goals described in subparagraph (A) of this paragraph.

During 2014, CenterPoint Energy plans to target approximately 5,500 miles of distribution circuits to proactively maintain vegetation clearance on the distribution system.

I. P.U.C. Subst. R. 25.96(f)(1)(I)

Vegetation management budget, divided into the categories listed in clauses (i)-(iv) of this subparagraph. The utility should, within the confines of its own budgeting practices, assign subcategories and list them under these categories where appropriate. If a utility does not budget amounts under any specific category, the utility shall provide a brief explanation of why it does not do so. The utility shall title the budget with the dates it covers and provide a total for each category or subcategory.

Distribution Vegetation Management Budget for January 1, 2014 – December 30, 2014

(i) Scheduled Vegetation Maintenance (Proactive Tree Trimming)	\$23,554,000
(ii) Unscheduled Vegetation Maintenance (Reactive Tree Trimming/Removal)	\$4,620,251
(iii) Tree Risk Management (Proactive Hazard Tree Removal)	\$1,500,000
(iv) Emergency and Post Storm Activities	\$516,375
Total	\$30,190,626

IV. P.U.C. Subst. R. 25.96(f)(2)

P.U.C. Subst. R. 25.96(f)(2) requires each utility to file an implementation summary for the preceding year of its Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C Subst. R. 25.96(f)(2)(A)

Whether the utility met its vegetation maintenance goals and how its goals have changed for the coming calendar year based on the results.

For 2013, CenterPoint Energy planned to proactively trim 260 circuits identified in the originally reported annual work plan. Ongoing analysis of cycle results identified 77 additional circuits targeted for possible vegetation maintenance. The Company completed trimming activities on 329 of the targeted 337 distribution circuits planned for 2013. Of the eight targeted circuits that were not completed in 2013, only four were defined as out of cycle. With approximately 1,400 circuits on CenterPoint Energy's distribution system identified for proactive

cycle vegetation management, the four circuits out of cycle resulted in an on-cycle circuit trim rate of 99.7% (1,397/1,400 = 99.7%).

For 2014, CenterPoint Energy's vegetation maintenance strategy has not changed. The goal for on-cycle circuits is greater than or equal to 98%.

B. P.U.C. Subst. R. 25.96(f)(2)(B)

Successes and challenges with the utility's strategy, including obstacles faced, such as property owner interference, and methods employed to overcome them.

CenterPoint Energy successfully met its 2013 goals as noted in the previous section; however there were challenges. In order to continue to provide reliable service, CenterPoint Energy increased its vegetation management staff by hiring two new foresters at the end of 2012. This has increased contractor oversight, and allowed for more personal customer interaction.

Challenges faced by the Company included mutual assistance requests to assist other utilities with service restoration due to freezing conditions in the fourth quarter of 2013 impacted the needed resources from performing scheduled vegetation maintenance on the CenterPoint Energy system. During the same period, CenterPoint Energy's service area experienced rain that limited the work production. In addition, property owner interference remains an ongoing challenge.

CenterPoint Energy has continued to successfully manage hazard trees despite several challenges. Drought conditions during 2011 resulted in a significant increase in work due to hazard trees in 2012 that continued to some extent during 2013. The uncertainty of the increased hazard tree work volumes impacted decisions on how to best utilize resources effectively. A significant amount of hazard trees were identified by the proactive scheduled circuit maintenance program; this slowed the progress for standard clearing activities by diverting resources. Because many of the hazard trees were not structurally sound, additional time and resources were required for the tree contractors to remove the trees safely.

Negative public perceptions surrounding utility vegetation management activities are also an ongoing challenge. CenterPoint Energy's Community Relations Department hired an experienced utility arborist in December of 2012 to coordinate vegetation management public education efforts and to further support the vegetation management program staff. This has

improved perceptions and enhanced the Company's working relationships with various interested stakeholders.

Another challenge for the Company's vegetation management contractors is workforce staffing. Demand is high due to competing industry needs for skilled labor, especially those with commercial driver's license. Emerging oil and gas industries are willing to pay more for vegetation management workers. The impact may be increased costs due to increased wages or costs associated with turnover.

C. P.U.C. Subst. R. 25.96(f)(2)(C)

The progress and obstacles to remediating issues on the vegetation-caused, worst performing feeders list as submitted in the preceding year's report.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(2)(D)

The number of continuing education hours logged for the utility's internal vegetation management personnel, if applicable;

CenterPoint Energy vegetation management personnel participated in 128 hours of continuing education in 2013.

E. P.U.C. Subst. R. 25.96(f)(2)(E)

The amount of vegetation management work the utility accomplished to achieve its vegetation management goals described in paragraph (1)(A) of this subsection.

CenterPoint Energy completed approximately 5,800 miles of proactive vegetation maintenance in 2013 and achieved an on-cycle circuit trim rate of 99.7%.

F. P.U.C. Subst. R. 25.96(f)(2)(F)

The separate SAIDI and SAIFI scores for vegetation-caused interruptions for each month and as reported for the calendar year in its Service Quality Report filed pursuant to 25.52 of this title (relating to Reliability and Continuity of Service) and 25.81 of this title (relating to Service Quality Reports), at both the feeder and company level.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes all forced interruptions.

G. P.U.C. Subst. R. 25.96(f)(2)(G)

The vegetation management budget, including, at a minimum:

- (i) *A single table with columns representing:*
 - (I) *The budget for each category and subcategory that the utility provided in the preceding year pursuant to paragraph(1)(I) of this subsection, with totals for each category and subcategory;*
 - (II) *The actual expenditures for each category and subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*
 - (III) *The percentage of actual expenditures over or under the budget for each category or subcategory listed pursuant to sub clause (I) of this clause; and*
 - (IV) *The actual expenditures for the preceding reporting year for each category or subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*

(i) BUDGET CATEGORY	(I) PROJECTED COST 2013	(II) ACTUAL COST 2013	(III) %OVER/(UNDER) 2013	(IV) ACTUAL COST 2012
Scheduled Vegetation Management (Proactive Tree Trimming)	\$20,500,000	\$19,884,381	-3.0%	\$20,309,468
Unscheduled Vegetation Management (Reactive Tree Trimming)	\$5,121,000	\$4,252,207	-17.0%	\$6,174,256
Tree Risk Management (Proactive Hazard Tree Removal)	\$3,250,000	\$1,380,065	-57.5%	\$1,991,916
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	\$503,000	\$425,520	-15.4%	\$708,774
TOTAL	\$29,374,000	\$25,942,173	-11.7%	\$29,184,414

(ii) *An explanation of the variation from the preceding year's vegetation management budget where actual expenditures in any category or subcategory fell below 98 percent or increased above 110 percent of the budget for that category.*

(i) BUDGET CATAGORY	(ii) EXPLANATION
Scheduled Vegetation Management (Proactive Tree Trimming)	<ul style="list-style-type: none"> • In December of 2013, the number of days of rain and the need to release crews for mutual assistance reduced the available labor resources to perform work. This caused the actual budget expense to be lower, but it did not adversely impact the work plan.
Unscheduled Vegetation Management (Reactive Tree Trimming)	<ul style="list-style-type: none"> • There were less "unplanned" hazard tree removal requests than had been budgeted. • The projected cost estimates included in the budget were based on the previous year's actual experience, which included greater impacts due to the drought conditions.
Tree Risk Management (Proactive Hazard Tree Removal)	<ul style="list-style-type: none"> • There was a lower hazard tree identification rate that anticipated. • The projected cost estimates included in the budget were based on the previous year's actual experience, which included greater impacts due to the drought conditions.
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	<ul style="list-style-type: none"> • The Company had fewer requests for assistance from contractor tree crews than had been budgeted to address storm restoration.

(iii) *The total vegetation management expenditures divided by the number of electric points of delivery on the utility's system, excluding service drops.*

TOTAL 2013 VEGETATION MANAGEMENT EXPENDITURES	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$25,972,173	2,436,565	\$10.65

(iv) *The total vegetation management expenditures, including expenditures from the storm reserve, divided by the number of customers the utility served.*

TOTAL 2013 VEGETATION MANAGEMENT EXPENDITURES INCLUDING STORM RESERVE	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$25,993,227	2,436,565	\$10.67

(v) *The vegetation management budget from the utility's last base-rate case.*

The vegetation management budget from the last rate case with a 2009 test year was \$18,849,952.



Control Number: 41381



Item Number: 26

Addendum StartPage: 0

PROJECT NO. 41381

**REPORT FOR VEGETATION
MANAGEMENT PLAN PURSUANT TO
P.U.C. SUBST. R. §25.96**

§
§
§

**PUBLIC UTILITY COMMISSION
OF TEXAS**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Contact: Sheri Moore
Telephone: 512-397-3047
Fax: 512-397-3050
sheri.moore@CenterPointEnergy.com

Table of Contents

	Page
Pleading	2
Attachment A	3
P.U.C. Subst. R. 25.96(d).....	4
P.U.C. Subst. R. 25.96(e)(1)	5
P.U.C. Subst. R. 25.96(e)(2).....	7
P.U.C. Subst. R. 25.96(e)(3).....	7
P.U.C. Subst. R. 25.96(e)(4).....	8
P.U.C. Subst. R. 25.96(e)(5).....	8
P.U.C. Subst. R. 25.96(e)(6).....	9
P.U.C. Subst. R. 25.96(e)(7).....	9
P.U.C. Subst. R. 25.96(f)(1).....	11
P.U.C. Subst. R. 25.96(f)(2).....	14

PROJECT NO. 41381

**REPORT FOR VEGETATION § PUBLIC UTILITY COMMISSION
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 § OF TEXAS**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Pursuant to P.U.C. Subst. R. 25.96, CenterPoint Energy Houston Electric, LLC submits the attached summary of its vegetation management plan to the Public Utility Commission of Texas.

Respectfully submitted,



SHERI MOORE
Manager of Regulatory Affairs
1005 Congress, Suite 650
Austin, Texas 78701
(512) 397-3047
(512) 397-3050 (fax)

ATTACHMENT A

Vegetation Management Report

Submitted May 1, 2015

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
FOR 2015**

Introduction

P.U.C. Subst. R. 25.96 requires each utility to file with the Public Utility Commission of Texas (“the Commission”) by May 1st of each year a summary of its Vegetation Management Plan (“Plan”) for the current calendar year and its progress in implementing its Plan for the preceding calendar year. CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or “the Company”) submits the following summary of its vegetation management plan pursuant to the Commission’s rules.

I. P.U.C. Subst. R. 25.96(d)

P.U.C. Subst. R. 25.96(d) requires each utility to provide an explanation in the utility’s annual report of deviations from several mandatory provisions in national standards. The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(d)(1)

ANSI Standard Z133.1, Arboricultural Operations – Pruning, or successor standard.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard Z133.1. Therefore, CenterPoint Energy does not have deviations from the provisions of ANSI Standard Z133.1.

B. P.U.C. Subst. R. 25.96(d)(2)

ANSI Standard A300 (Part 1), Tree Shrub, and Other Woody Plant Management – Standard Practices (Pruning); (Part 7), Integrated Vegetation Management a. Utility Rights-of Way practices; and (Part 9), Tree Risk Assessment a. Tree Structure Assessment, or successor standards.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard A300 (Parts 1 & 9) where applicable. CenterPoint Energy’s vegetation management policies for distribution facilities do not conform to all provisions of Part 7 of ANSI

A300. Due to the numerous site alternatives in urban, suburban, or rural settings with limited utility control of long-term actions of the various stakeholders and utility rights unique for each site, full implementation is not practical due to the costs involved. However, various methods for specific situations may be utilized as appropriate to achieve limited objectives.

C. P.U.C. Subst. R. 25.96(d)(3)

National Electrical Safety Code Section 218, or successor standard.

CenterPoint Energy does not have known deviations from the provisions of Section 218 of the National Electrical Safety Code (“NESC”).

II. P.U.C. Subst. R. 25.96(e)

P.U.C. Subst. R. 25.96 requires each utility to maintain a Plan that “describes the utility’s objectives, practices, procedures, and work specifications for its distribution assets.” The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(e)(1)

Tree pruning methodology, trimming clearances, and scheduling approach.

- Methodology

CenterPoint Energy’s vegetation management program for the distribution system utilizes an “on-cycle” approach to proactive tree trimming. The Company’s strategy is to trim 35 kV circuits and those 12 kV circuits with narrow easements or restricted access on a three year cycle, and 12 kV circuits with normal easements on a five year cycle. Laterals along with the feeder-main are trimmed on circuits identified for trimming.

Approximately 75% of the circuit vegetation management work is on a fixed price basis with the remainder of the costs on a time and equipment basis. Fixed price work is primarily allocated to circuits with extensive feeder and lateral networks that are in outlying areas of the system or that are otherwise conducive to fixed price bids. Time and equipment work is allocated strategically for smaller circuits, which include those circuits close to vendor parking locations, those with problems that require quicker action than a bid process will allow, and for other situations not conducive to fixed price bids.

The vegetation management personnel at CenterPoint Energy prepare work maps of circuits identified for fixed price work. Once completed, these maps as well as trimming specifications are released to the vendors for field review. The vendors submit bids to complete tree trimming on the circuit. The vegetation management personnel review the bids and award the work to the best valued provider based on pricing, available resource capacity, and performance as determined from previous performance audits of the vendors' completed work. When the work is completed, the CenterPoint Energy forester inspects the job to ensure that it was completed satisfactorily and reviews the invoices to ensure accuracy. CenterPoint Energy foresters and vendors interface with the customers as needed to resolve issues and facilitate completion of the work.

Distribution vegetation management work is administered and coordinated by a staff of one manager, ten professional utility foresters, one compliance specialist, and one support analyst. Currently, six professional Line Clearance vendors perform utility tree trimming services for CenterPoint Energy.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the vendors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

B. P.U.C. Subst. R. 25.96(e)(2)

Methods used to mitigate threats posed by vegetation to applicable distribution assets.

Unscheduled or reactive tree trim maintenance is performed by CenterPoint Energy to address vegetation issues that require immediate attention. This work is done in response to specific requests from customers or CenterPoint Energy personnel located at the Service Centers. Customer requests are received by CenterPoint Energy personnel and routed to assigned vendors for inspection to ensure validity. If valid, the trees are trimmed or removed to clearance specifications. Vendors also receive work orders directly from the Service Centers and conduct work per standard line clearance specifications or specific instructions on the work request. Most reactive work is performed on a unit-priced basis.

C. P.U.C. Subst. R. 25.96(e)(3)

Tree risk management program.

In addition to those hazard trees identified and removed as part of scheduled and unscheduled circuit maintenance, CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees

impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

D. P.U.C. Subst. R. 25.96(e)(4)

Participation in continuing education by the utility's internal vegetation management personnel.

Most of CenterPoint Energy's utility vegetation management personnel are degreed foresters or otherwise degreed with extensive experience within the utility vegetation management industry. Company foresters are expected to maintain Texas Department of Agriculture Non-Commercial Pesticide Applicator licenses that require ongoing annual continuing education units. Several of the foresters independently maintain International Society of Arboriculture Certified Arborist status. The Company does not require this status due to the formal educational requirements for the positions; however, those foresters that maintain their certifications are supported in acquiring necessary continuing education units related to the work. The foresters also attend various industry related professional conferences, seminars, and training as available and beneficial to support educational development associated with vegetation management.

E. P.U.C. Subst. R. 25.96(e)(5)

Estimate of the miles of circuits along which vegetation is to be trimmed or method for planning trimming work for the coming year.

CenterPoint Energy estimates that approximately 5,500 miles of distribution circuits will be trimmed in a given year. This mileage estimate is derived by averaging the circuit mileage to complete planned distribution circuits within the three and five year cycles. The sum of the total mileage for the circuits to be trimmed in a given year will vary.

F. P.U.C. Subst. R. 25.96(e)(6)

Plan to remediate vegetation-caused issues on feeders which are on the worst vegetation-caused performing feeder list for the preceding calendar year's System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(e)(7)

Customer education, notification, and outreach practices related to vegetation management.

CenterPoint Energy utilizes customer notifications and public awareness campaign strategies to provide customer education and notifications related to vegetation management. CenterPoint Energy intends to continue these efforts.

- Customer Notifications of Work to be Performed

CenterPoint Energy vendors are required to distribute customer notification door cards at residences and businesses at least seven days prior to planned tree pruning activities. CenterPoint Energy's door hanger notification is available to the Commission Staff upon request. It includes the vendor's contact information to allow the customer to set an appointment to provide access, discuss planned work activities and concerns, and arrange to be present while work is done. CenterPoint Energy also provides a *Tree Trimming Practices* brochure with the work notification door card. The brochure is available to the Commission Staff upon request. It explains general practices and responses to frequently asked questions. These two items are the primary method of pre-work notification.

The brochure has been a successful tool for answering questions and providing the public with an educational visual aid. In addition, CenterPoint Energy provides a *Palm Trees* brochure selectively to those customers with palm trees explaining issues unique to palms and power lines. These brochures and the door card provide significant information to the recipient, while also pointing them to additional information on the CenterPointEnergy.com/trees website.

CenterPoint Energy believes that these documents aide in setting expectations to minimize misconceptions and prompts discussions of concerns before the work is performed.

- Non-Print Media Used in Public Education Campaign

CenterPoint Energy utilizes a landing page on its website dedicated to vegetation management, which may be found at CenterPointEnergy.com/trees. This section of the main CenterPoint Energy website provides information on tree planting guides, plant and trim trees safely, power line friendly trees, Right Tree Right Place information, energy saving tips, vegetation management practices, frequently asked questions, the *Tree Trimming Practices*, *Palm Trees and Power Lines* brochures, and information on tree trimming vendors. Examples of information available from these sites include Power Line Clearance Standards, Recommended List of Low Growing Trees, and What My Pruned Trees Will Look Like. Each public education tool warns the public to use caution when pruning trees around power lines and to plant the right tree in the right place, which is away from power lines.

- Other Media Events

CenterPoint Energy partners with a number of parks, community groups, and other organizations around the Greater Houston area for tree planting events, which replace potentially hazardous trees near power lines with low-growing, power line-friendly trees. The events garner involvement from local parks and recreation departments, government officials and stakeholder organizations, as well as interested citizens in the communities. The resulting media coverage, community relationships, dissemination of collateral material, and permanent park signage help to reinforce the Right Tree Right Place message long after the completion of the event.

CenterPoint Energy has partnered with Trees for Houston to establish a Right Tree Right Place nursery on Company property as a source of low-growing power line compatible tree species for various events. The objectives are to further enhance key customer relationships, provide successful growing stock as examples of power line “friendly” trees, and build employee engagement.

CenterPoint Energy’s Speakers Bureau sends employee volunteers to area civic associations to make presentations about vegetation management and provide materials. Upon request, employees who work directly with vegetation management and electric operations also

make similar presentations at meetings for municipal officials, homeowner's associations, landscape architects, builders, or other community groups.

III. P.U.C. Subst. R. 25.96(f)(1)

P.U.C. Subst. R. 25.96 requires each utility to file a Vegetation Management Plan Report that summarizes its Plan and provide its progress in implementing the Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C. Subst. R. 25.96(f)(1)(A)

Vegetation maintenance goals and the method the utility employs to measure its progress.

CenterPoint Energy's vegetation management program for the distribution system utilizes an "on-cycle" approach to proactive tree trimming. The Company's vegetation maintenance strategy is to proactively trim the distribution system on a three or five year cycle depending on circuit voltage, circuit type, and location. CenterPoint Energy has approximately 21,000 miles of distribution circuits that require vegetation maintenance. The Company's goal is to target between an estimated 4,500 to 6,500 miles of distribution circuits annually to proactively maintain vegetation clearance on the distribution system. Circuit and circuit section data is analyzed to determine the circuit-trim plan mileage, which will vary each year. CenterPoint Energy plans to maintain an on-cycle circuit trim rate greater than or equal to 98% for distribution circuits.

B. P.U.C. Subst. R. 25.96(f)(1)(B)

Trimming clearances and scheduling approach.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- **Scheduling**

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the vendors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

C. P.U.C. Subst. R. 25.96(f)(1)(C)

Plan to remediate vegetation-caused issues on feeders that are on the vegetation-caused worst performing feeder list for the preceding calendar year's SAIDI and SAIFI.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(1)(D)

Tree risk management program.

CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the

landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

E. P.U.C. Subst. R. 25.96(f)(1)(E)

Approach to monitoring, preparing for and responding to adverse environmental conditions such as drought and wildfire danger that may impact its vegetation management policies and practices.

CenterPoint Energy does not have a specific drought and wildfire danger plan. However, the Company continuously monitors and adjusts plans as needed for adverse conditions to address impacts unique to nature of the occurrences. This includes updating and maintaining mutual assistance contracts with vegetation management vendors to supplement current resources if conditions require.

F. P.U.C. Subst. R. 25.96(f)(1)(F)

Total overhead distribution miles in its system, excluding service drops.

As of December 31, 2014, CenterPoint Energy has 27,436 miles of overhead distribution lines. This includes 12 kV and 35 kV overhead feeder-main, laterals, and secondary conductor, excluding service drops.

G. P.U.C. Subst. R. 25.96(f)(1)(G)

Total number of electric points of delivery.

As of December 31, 2014, CenterPoint Energy has 2,495,090 electric points of delivery.

H. P.U.C. Subst. R. 25.96(f)(1)(H)

Amount of vegetation-related work it plans to accomplish in the current calendar year to achieve its vegetation management goals described in subparagraph (A) of this paragraph.

During 2015, CenterPoint Energy plans to target approximately 5,500 miles of distribution circuits to proactively maintain vegetation clearance on the distribution system.

I. P.U.C. Subst. R. 25.96(f)(1)(I)

Vegetation management budget, divided into the categories listed in clauses (i)-(iv) of this subparagraph. The utility should, within the confines of its own budgeting practices, assign subcategories and list them under these categories where appropriate. If a utility does not budget amounts under any specific category, the utility shall provide a brief explanation of why it does not do so. The utility shall title the budget with the dates it covers and provide a total for each category or subcategory.

Distribution Vegetation Management Budget for January 1, 2015 – December 30, 2015

(i) Scheduled Vegetation Maintenance (Proactive Tree Trimming)	\$23,300,000
(ii) Unscheduled Vegetation Maintenance (Reactive Tree Trimming/Removal)	\$3,487,787
(iii) Tree Risk Management (Proactive Hazard Tree Removal)	\$1,000,000
(iv) Emergency and Post Storm Activities	\$535,401
Total	\$28,323,188

IV. P.U.C. Subst. R. 25.96(f)(2)

P.U.C. Subst. R. 25.96(f)(2) requires each utility to file an implementation summary for the preceding year of its Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C Subst. R. 25.96(f)(2)(A)

Whether the utility met its vegetation maintenance goals and how its goals have changed for the coming calendar year based on the results.

For 2014, CenterPoint Energy identified 321 circuits for proactive on-cycle trimming. The Company completed trimming activities on 292 of the targeted 321 distribution circuits planned for 2014. Twenty nine circuits were defined as out of cycle, and are carried over to the 2015 work plan for proactive trimming. With approximately 1,400 circuits on CenterPoint Energy's distribution system identified for proactive cycle vegetation management, the twenty nine circuits out of cycle resulted in an on-cycle circuit trim rate of 98% ($1,371/1,400 = 98\%$).

For 2015, CenterPoint Energy's vegetation maintenance strategy has not changed. The goal for on-cycle circuits is greater than or equal to 98%.

B. P.U.C. Subst. R. 25.96(f)(2)(B)

Successes and challenges with the utility's strategy, including obstacles faced, such as property owner interference, and methods employed to overcome them.

CenterPoint Energy successfully met its 2014 goals as noted in the previous section; however there were challenges.

Challenges faced by the Company included vendor labor constraints caused by mutual assistance needs to assist other utilities with service restoration, and opportunities in competing industries. Demand is high due to competing industry needs for skilled labor, especially those with commercial driver's licenses. Competing industries appear to be willing to pay more for vegetation management workers which may result in future increased costs to CenterPoint Energy. These challenges and the necessity to divert on-site resources to support necessary capital line construction work impacted the resources needed to perform scheduled vegetation maintenance on the CenterPoint Energy system.

CenterPoint Energy continues to manage hazard trees despite several challenges. Severe drought conditions during 2011-2013 resulted in a significant increase in hazard tree removal work that continued to some extent in 2014. The continued uncertainty of the hazard tree work volumes still impacts decisions on how to best utilize resources effectively.

Negative public perceptions surrounding utility vegetation management activities are also an ongoing challenge. CenterPoint Energy's Community Relations Department employs an experienced utility arborist to coordinate vegetation management public education efforts and to further support the vegetation management program staff. These efforts along with those of the Company's vegetation management staff have improved perceptions and enhanced the Company's working relationships with various interested stakeholders. This work has been acknowledged by the Arbor Day Foundation's annual recognition of CenterPoint Energy as a TreeLine USA Utility for several consecutive years.

Property owner interference is an ongoing challenge inherent to the work activities. As previously noted, the Company employs a staff of professional foresters who work with these individuals daily to resolve conflicts.

C. P.U.C. Subst. R. 25.96(f)(2)(C)

The progress and obstacles to remediating issues on the vegetation-caused, worst performing feeders list as submitted in the preceding year's report.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(2)(D)

The number of continuing education hours logged for the utility's internal vegetation management personnel, if applicable;

CenterPoint Energy vegetation management personnel participated in 132 hours of continuing education in 2014.

E. P.U.C. Subst. R. 25.96(f)(2)(E)

The amount of vegetation management work the utility accomplished to achieve its vegetation management goals described in paragraph (1)(A) of this subsection.

CenterPoint Energy completed approximately 5,500 miles of proactive vegetation maintenance in 2014 and achieved an on-cycle circuit trim rate of 98%.

F. P.U.C. Subst. R. 25.96(f)(2)(F)

The separate SAIDI and SAIFI scores for vegetation-caused interruptions for each month and as reported for the calendar year in its Service Quality Report filed pursuant to 25.52 of this title (relating to Reliability and Continuity of Service) and 25.81 of this title (relating to Service Quality Reports), at both the feeder and company level.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(f)(2)(G)

The vegetation management budget, including, at a minimum:

- (i) *A single table with columns representing:*
- (I) *The budget for each category and subcategory that the utility provided in the preceding year pursuant to paragraph(1)(I) of this subsection, with totals for each category and subcategory;*
 - (II) *The actual expenditures for each category and subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*
 - (III) *The percentage of actual expenditures over or under the budget for each category or subcategory listed pursuant to sub clause (I) of this clause; and*
 - (IV) *The actual expenditures for the preceding reporting year for each category or subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*

(i) BUDGET CATEGORY	(I) PROJECTED COST 2014	(II) ACTUAL COST 2014	(III) %OVER/(UNDER) 2014	(IV) ACTUAL COST 2013
Scheduled Vegetation Management (Proactive Tree Trimming)	\$23,554,000	\$18,879,280	-19.8%	\$19,884,381
Unscheduled Vegetation Management (Reactive Tree Trimming)	\$4,620,251	\$3,432,029	-25.7%	\$4,252,207
Tree Risk Management (Proactive Hazard Tree Removal)	\$1,500,000	\$633,231	-57.8%	\$1,380,065
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	\$516,375	\$554,133	7.3%	\$425,521
TOTAL	\$30,190,626	\$23,498,673	-22.2%	\$25,942,174

(ii) *An explanation of the variation from the preceding year's vegetation management budget where actual expenditures in any category or subcategory fell below 98 percent or increased above 110 percent of the budget for that category.*

(i) BUDGET CATAGORY	(ii) EXPLANATION
Scheduled Vegetation Management (Proactive Tree Trimming)	<ul style="list-style-type: none"> • Even with the lower actual spend than planned in this area, the Company met the 2014 on-cycle goal threshold for circuit trimming. The availability of vendor labor resources was the largest factor that affected the variance in the scheduled Vegetation Maintenance budget for 2014. Labor vacated the system to meet mutual assistance requests by other utilities, and competing industries. Labor was also required to support necessary capital project deadlines. The impact of this labor reduction was offset by a lower number of hazard tree removals from what was expected from the previous year.
Unscheduled Vegetation Management (Reactive Tree Trimming)	<ul style="list-style-type: none"> • There were less “unplanned” hazard tree removal requests than had been budgeted. • The projected cost estimates included in the budget were based on recent years’ actual experience, which included greater impacts due to the drought conditions.
Tree Risk Management (Proactive Hazard Tree Removal)	<ul style="list-style-type: none"> • There was a lower hazard tree identification rate than anticipated. • The projected cost estimates included in the budget were based on the previous year’s actual experience, which included greater impacts due to the drought conditions.
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	<ul style="list-style-type: none"> • Within range.

(iii) *The total vegetation management expenditures divided by the number of electric points of delivery on the utility's system, excluding service drops.*

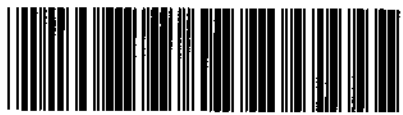
TOTAL 2014 VEGETATION MANAGEMENT EXPENDITURES	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$23,498,673	2,495,090	\$9.42

(iv) *The total vegetation management expenditures, including expenditures from the storm reserve, divided by the number of customers the utility served.*

TOTAL 2014 VEGETATION MANAGEMENT EXPENDITURES INCLUDING STORM RESERVE	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$23,597,487	2,495,090	\$9.46

(v) *The vegetation management budget from the utility's last base-rate case.*

The vegetation management budget from the last rate case with a 2009 test year was \$18,849,952.



Control Number: 41381



Item Number: 32

Addendum StartPage: 0

PROJECT NO. 41381

REPORT FOR VEGETATION §
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 §

RECEIVED
2016 APR 29 PM 1:02
PUBLIC UTILITY COMMISSION
PUBLIC UTILITY COMMISSION
OF TEXAS

VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96

Contact: Sheri Moore
Telephone: 512-397-3047
Fax: 512-397-3050
sheri.moore@CenterPointEnergy.com

Table of Contents

	Page
Pleading.....	2
Attachment A - Report.....	3
P.U.C. Subst. R. 25.96(d)	4
P.U.C. Subst. R. 25.96(e)(1)	5
P.U.C. Subst. R. 25.96(e)(2)	7
P.U.C. Subst. R. 25.96(e)(3)	7
P.U.C. Subst. R. 25.96(e)(4)	8
P.U.C. Subst. R. 25.96(e)(5)	8
P.U.C. Subst. R. 25.96(e)(6)	9
P.U.C. Subst. R. 25.96(e)(7)	9
P.U.C. Subst. R. 25.96(f)(1).....	11
P.U.C. Subst. R. 25.96(f)(2).....	15

PROJECT NO. 41381

**REPORT FOR VEGETATION § PUBLIC UTILITY COMMISSION
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 § OF TEXAS**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Pursuant to P.U.C. Subst. R. 25.96, CenterPoint Energy Houston Electric, LLC submits the attached summary of its vegetation management plan to the Public Utility Commission of Texas.

Respectfully submitted,



SHERI MOORE
Manager of Regulatory Affairs
1005 Congress, Suite 650
Austin, Texas 78701
(512) 397-3047
(512) 397-3050 (fax)

ATTACHMENT A

Vegetation Management Report
Submitted May 1, 2016

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
FOR 2016**

Introduction

P.U.C. Subst. R. 25.96 requires each utility to file with the Public Utility Commission of Texas (“the Commission”) by May 1st of each year a summary of its Vegetation Management Plan (“Plan”) for the current calendar year and its progress in implementing its Plan for the preceding calendar year. CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or “the Company”) submits the following summary of its vegetation management plan pursuant to the Commission’s rules.

I. P.U.C. Subst. R. 25.96(d)

P.U.C. Subst. R. 25.96(d) requires each utility to provide an explanation in the utility’s annual report of deviations from several mandatory provisions in national standards. The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(d)(1)

ANSI Standard Z133.1, Arboricultural Operations – Pruning, or successor standard.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard Z133.1. Therefore, CenterPoint Energy does not have deviations from the provisions of ANSI Standard Z133.1.

B. P.U.C. Subst. R. 25.96(d)(2)

ANSI Standard A300 (Part 1), Tree Shrub, and Other Woody Plant Management – Standard Practices (Pruning); (Part 7), Integrated Vegetation Management a. Utility Rights-of Way practices; and (Part 9), Tree Risk Assessment a. Tree Structure Assessment, or successor standards.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard A300 (Parts 1 & 9) where applicable. CenterPoint Energy’s vegetation management policies for distribution facilities do not conform to all provisions of Part 7 of ANSI

A300. Due to the numerous site alternatives in urban, suburban, or rural settings with limited utility control of long-term actions of the various stakeholders and utility rights unique for each site, full implementation is not practical due to the costs involved. However, various methods for specific situations may be utilized as appropriate to achieve limited objectives.

C. P.U.C. Subst. R. 25.96(d)(3)

National Electrical Safety Code Section 218, or successor standard.

CenterPoint Energy does not have known deviations from the provisions of Section 218 of the National Electrical Safety Code (“NESC”).

II. P.U.C. Subst. R. 25.96(e)

P.U.C. Subst. R. 25.96 requires each utility to maintain a Plan that “describes the utility’s objectives, practices, procedures, and work specifications for its distribution assets.” The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(e)(1)

Tree pruning methodology, trimming clearances, and scheduling approach.

- Methodology

CenterPoint Energy’s vegetation management program for the distribution system utilizes an “on-cycle” approach to proactive tree trimming. The Company’s strategy is to trim 35 kV circuits and those 12 kV circuits with narrow easements or restricted access on a three year cycle, and 12 kV circuits with normal easements on a five year cycle. Laterals along with the feeder-main are trimmed on circuits identified for trimming.

Approximately 75% of the circuit vegetation management work is on a fixed price basis with the remainder of the costs on a time and equipment basis. Fixed price work is primarily allocated to circuits with extensive feeder and lateral networks that are in outlying areas of the system or that are otherwise conducive to fixed price bids. Time and equipment work is allocated strategically for smaller circuits, which include those circuits close to vendor parking

locations, those with problems that require quicker action than a bid process will allow, and for other situations not conducive to fixed price bids.

The vegetation management personnel at CenterPoint Energy prepare work maps of circuits identified for fixed price work. Once completed, these maps as well as trimming specifications are released to the vendors for field review. The vendors submit bids to complete tree trimming on the circuit. The vegetation management personnel review the bids and award the work to the best valued provider based on pricing, available resource capacity, and performance as determined from previous performance audits of the vendors' completed work. When the work is completed, the CenterPoint Energy forester inspects the job to ensure that it was completed satisfactorily and reviews the invoices to ensure accuracy. CenterPoint Energy foresters and vendors interface with the customers as needed to resolve issues and facilitate completion of the work.

Distribution vegetation management work is administered and coordinated by a staff of one manager, ten professional utility foresters, one compliance specialist, one mapping technician, and one support analyst. Currently, six professional Line Clearance vendors perform utility tree trimming services for CenterPoint Energy.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the vendors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

B. P.U.C. Subst. R. 25.96(e)(2)

Methods used to mitigate threats posed by vegetation to applicable distribution assets.

Unscheduled or reactive tree trim maintenance is performed by CenterPoint Energy to address vegetation issues that require immediate attention. This work is done in response to specific requests from customers or CenterPoint Energy personnel located at the Service Centers. Customer requests are received by CenterPoint Energy personnel and routed to assigned vendors for inspection to ensure validity. If valid, the trees are trimmed or removed to clearance specifications. Vendors also receive work orders directly from the Service Centers and conduct work per standard line clearance specifications or specific instructions on the work request. Most reactive work is performed on a unit-priced basis.

C. P.U.C. Subst. R. 25.96(e)(3)

Tree risk management program.

In addition to those hazard trees identified and removed as part of scheduled and unscheduled circuit maintenance, CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees

impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

D. P.U.C. Subst. R. 25.96(e)(4)

Participation in continuing education by the utility's internal vegetation management personnel.

Most of CenterPoint Energy's utility vegetation management personnel are degreed foresters or otherwise degreed with extensive experience within the utility vegetation management industry. Company foresters are expected to maintain Texas Department of Agriculture Non-Commercial Pesticide Applicator licenses that require ongoing annual continuing education units. Several of the foresters independently maintain International Society of Arboriculture Certified Arborist status. The Company does not require this status due to the formal educational requirements for the positions; however, those foresters that maintain their certifications are supported in acquiring necessary continuing education units related to the work. The foresters also attend various industry related professional conferences, seminars, and training as available and beneficial to support educational development associated with vegetation management.

E. P.U.C. Subst. R. 25.96(e)(5)

Estimate of the miles of circuits along which vegetation is to be trimmed or method for planning trimming work for the coming year.

CenterPoint Energy estimates that approximately 5,500 miles of distribution circuits will be trimmed in a given year. This mileage estimate is derived by averaging the circuit mileage to complete planned distribution circuits within the three and five year cycles. The sum of the total mileage for the circuits to be trimmed in a given year will vary.

F. P.U.C. Subst. R. 25.96(e)(6)

Plan to remediate vegetation-caused issues on feeders which are on the worst vegetation-caused performing feeder list for the preceding calendar year's System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(e)(7)

Customer education, notification, and outreach practices related to vegetation management.

CenterPoint Energy utilizes customer notifications and public awareness campaign strategies to provide customer education and notifications related to vegetation management. CenterPoint Energy intends to continue these efforts.

- **Customer Notifications of Work to be Performed**

CenterPoint Energy vendors are required to distribute customer notification door cards at residences and businesses at least seven days prior to planned tree pruning activities. CenterPoint Energy's door hanger notification is available to the Commission Staff upon request. It includes the vendor's contact information to allow the customer to set an appointment to provide access, discuss planned work activities and concerns, and arrange to be present while work is done. CenterPoint Energy also provides a *Tree Trimming Practices* brochure with the work notification door card. The brochure is available to the Commission Staff upon request. It explains general practices and responses to frequently asked questions. These two items are the primary method of pre-work notification.

The brochure has been a successful tool for answering questions and providing the public with an educational visual aid. In addition, CenterPoint Energy provides a *Palm Trees* brochure selectively to those customers with palm trees explaining issues unique to palms and power lines. These brochures and the door card provide significant information to the recipient, while also pointing them to additional information on the CenterPointEnergy.com/trees website.

CenterPoint Energy believes that these documents aide in setting expectations to minimize misconceptions and prompts discussions of concerns before the work is performed.

- Non-Print Media Used in Public Education Campaign

CenterPoint Energy utilizes a landing page on its website dedicated to vegetation management, which may be found at CenterPointEnergy.com/trees. This section of the main CenterPoint Energy website provides information on tree planting guides, plant and trim trees safely, power line friendly trees, Right Tree Right Place information, energy saving tips, vegetation management practices, frequently asked questions, the *Tree Trimming Practices*, *Palm Trees and Power Lines* brochures, and information on tree trimming vendors. Examples of information available from these sites include Power Line Clearance Standards, Recommended List of Low Growing Trees, and What My Pruned Trees Will Look Like. Each public education tool warns the public to use caution when pruning trees around power lines and to plant the right tree in the right place, which is away from power lines.

- Other Media Events

CenterPoint Energy partners with a number of parks, community groups, and other organizations around the Greater Houston area for tree planting events, which replace potentially hazardous trees near power lines with low-growing, power line-friendly trees. The events garner involvement from local parks and recreation departments, government officials and stakeholder organizations, as well as interested citizens in the communities. The resulting media coverage, community relationships, dissemination of collateral material, and permanent park signage help to reinforce the Right Tree Right Place message long after the completion of the event.

CenterPoint Energy has partnered with Trees for Houston to establish a Right Tree Right Place nursery on Company property as a source of low-growing power line compatible tree species for various events. The objectives are to further enhance key customer relationships, provide successful growing stock as examples of power line “friendly” trees, and build employee engagement.

CenterPoint Energy’s Speakers Bureau sends employee volunteers to area civic associations to make presentations about vegetation management and provide materials. Upon request, employees who work directly with vegetation management and electric operations also

make similar presentations at meetings for municipal officials, homeowner's associations, landscape architects, builders, or other community groups.

III. P.U.C. Subst. R. 25.96(f)(1)

P.U.C. Subst. R. 25.96 requires each utility to file a Vegetation Management Plan Report that summarizes its Plan and provide its progress in implementing the Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C. Subst. R. 25.96(f)(1)(A)

Vegetation maintenance goals and the method the utility employs to measure its progress.

CenterPoint Energy's vegetation management program for the distribution system utilizes an "on-cycle" approach to proactive tree trimming. The Company's vegetation maintenance strategy is to proactively trim the distribution system on a three or five year cycle depending on circuit voltage, circuit type, and location. CenterPoint Energy has approximately 21,000 miles of distribution circuits that require vegetation maintenance. The Company's goal is to target between an estimated 4,000 to 6,500 miles of distribution circuits annually to proactively maintain vegetation clearance on the distribution system. Circuit and circuit section data is analyzed to determine the circuit-trim plan mileage, which will vary each year.

B. P.U.C. Subst. R. 25.96(f)(1)(B)

Trimming clearances and scheduling approach.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- Scheduling

CenterPoint Energy identifies circuits planned for scheduled work each calendar year based on the three-year and five-year cycles. The plan is established based on those circuits last maintained in the previous three or five year time periods. Once the list of planned circuits is generated, actual scheduling for specific circuits during the year may vary based on known reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

As previously discussed, those circuits identified for work are either designated for fixed price or time-and-equipment work activities. The fixed-price work allows the vendors some flexibility to set their own schedules over extended periods within the year, while the time and equipment work is more closely controlled to meet changing timing needs.

C. P.U.C. Subst. R. 25.96(f)(1)(C)

Plan to remediate vegetation-caused issues on feeders that are on the vegetation-caused worst performing feeder list for the preceding calendar year's SAIDI and SAIFI.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(1)(D)

Tree risk management program.

CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

E. P.U.C. Subst. R. 25.96(f)(1)(E)

Approach to monitoring, preparing for and responding to adverse environmental conditions such as drought and wildfire danger that may impact its vegetation management policies and practices.

CenterPoint Energy does not have a specific drought and wildfire danger plan. However, the Company continuously monitors and adjusts plans as needed for adverse conditions to address impacts unique to nature of the occurrences. This includes updating and maintaining mutual assistance contracts with vegetation management vendors to supplement current resources as conditions require.

F. P.U.C. Subst. R. 25.96(f)(1)(F)

Total overhead distribution miles in its system, excluding service drops.

As of December 31, 2015, CenterPoint Energy has 27,621 miles of overhead distribution lines. This includes 12 kV and 35 kV overhead feeder-main, laterals, and secondary conductor, excluding service drops.

G. P.U.C. Subst. R. 25.96(f)(1)(G)

Total number of electric points of delivery.

As of December 31, 2015, CenterPoint Energy has 2,394,231 electric points of delivery.

H. P.U.C. Subst. R. 25.96(f)(1)(H)

Amount of vegetation-related work it plans to accomplish in the current calendar year to achieve its vegetation management goals described in subparagraph (A) of this paragraph.

During 2016, CenterPoint Energy plans to target approximately 4,100 miles of distribution circuits to proactively maintain vegetation clearance on the distribution system.

I. P.U.C. Subst. R. 25.96(f)(1)(I)

Vegetation management budget, divided into the categories listed in clauses (i)-(iv) of this subparagraph. The utility should, within the confines of its own budgeting practices, assign subcategories and list them under these categories where appropriate. If a utility does not budget amounts under any specific category, the utility shall provide a brief explanation of why it does not do so. The utility shall title the budget with the dates it covers and provide a total for each category or subcategory.

Distribution Vegetation Management Budget for January 1, 2016 – December 30, 2016

(i) Scheduled Vegetation Maintenance (Proactive Tree Trimming)	\$22,127,000
(ii) Unscheduled Vegetation Maintenance (Reactive Tree Trimming/Removal)	\$3,656,296
(iii) Tree Risk Management (Proactive Hazard Tree Removal)	\$750,000
(iv) Emergency and Post Storm Activities	\$845,982
Total	\$27,379,278

IV. P.U.C. Subst. R. 25.96(f)(2)

P.U.C. Subst. R. 25.96(f)(2) requires each utility to file an implementation summary for the preceding year of its Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C Subst. R. 25.96(f)(2)(A)

Whether the utility met its vegetation maintenance goals and how its goals have changed for the coming calendar year based on the results.

For 2015, CenterPoint Energy identified 303 circuits for proactive on-cycle trimming. Also, CenterPoint Energy strategically worked 89 circuits in 2015 prior to their planned trim cycle to support reliability concerns and maximize available vendor resource effectiveness. The Company completed trimming activities on 278 of the targeted 303 distribution circuits planned for 2015. Twenty five circuits were defined as out of cycle, and are carried over to the 2016 work plan for proactive trimming. With approximately 1,400 circuits on CenterPoint Energy's

distribution system identified for proactive cycle vegetation management, the twenty five circuits out of cycle resulted in an on-cycle circuit trim rate of 98% (1,375/1,400 = 98%).

For 2016, CenterPoint Energy's vegetation maintenance strategy has not changed.

B. P.U.C. Subst. R. 25.96(f)(2)(B)

Successes and challenges with the utility's strategy, including obstacles faced, such as property owner interference, and methods employed to overcome them.

CenterPoint Energy successfully met its 2015 goals as noted in the previous section; however there were challenges.

Challenges faced by the Company included loss of one month planned trimming production due to abnormally heavy rainfall in the spring of 2015, and continued vendor labor constraints. Demand is high due to competing industry needs for skilled labor, especially those with commercial driver's licenses. Competing industries appear to be willing to pay more for vegetation management workers which has resulted in increased costs to CenterPoint Energy. These challenges and the necessity to divert on-site resources to support capital line construction work impacted the resources needed to perform scheduled vegetation maintenance on the CenterPoint Energy system.

CenterPoint Energy continues to manage hazard trees. Severe drought conditions during 2011-2013 resulted in a significant increase in hazard tree removal work that continued to some extent in 2014. The volume of hazard trees identified in 2015 was less than originally forecasted. The uncertainty of hazard tree work volumes impacts decisions on how to best utilize resources effectively.

Negative public perceptions surrounding utility vegetation management activities are an ongoing challenge. CenterPoint Energy's Community Relations Department employs an experienced utility arborist to coordinate vegetation management public education efforts and to further support the vegetation management program staff. These efforts along with those of the Company's vegetation management staff have improved perceptions and enhanced the Company's working relationships with various interested stakeholders. This work has been acknowledged by the Arbor Day Foundation's annual recognition of CenterPoint Energy as a TreeLine USA Utility for twelve consecutive years.

Property owner interference is an ongoing challenge inherent to the work activities. As previously noted, the Company employs a staff of professional foresters who work with these individuals daily to resolve conflicts.

C. P.U.C. Subst. R. 25.96(f)(2)(C)

The progress and obstacles to remediating issues on the vegetation-caused, worst performing feeders list as submitted in the preceding year's report.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(2)(D)

The number of continuing education hours logged for the utility's internal vegetation management personnel, if applicable;

CenterPoint Energy vegetation management personnel participated in 238 hours of continuing education in 2015.

E. P.U.C. Subst. R. 25.96(f)(2)(E)

The amount of vegetation management work the utility accomplished to achieve its vegetation management goals described in paragraph (1)(A) of this subsection.

CenterPoint Energy completed approximately 4,700 miles of proactive vegetation maintenance in 2015 and achieved an on-cycle circuit trim rate of 98%.

F. P.U.C. Subst. R. 25.96(f)(2)(F)

The separate SAIDI and SAIFI scores for vegetation-caused interruptions for each month and as reported for the calendar year in its Service Quality Report filed pursuant to 25.52 of this title (relating to Reliability and Continuity of Service) and 25.81 of this title (relating to Service Quality Reports), at both the feeder and company level.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(f)(2)(G)

The vegetation management budget, including, at a minimum:

- (i) *A single table with columns representing:*
 - (I) *The budget for each category and subcategory that the utility provided in the preceding year pursuant to paragraph(1)(I) of this subsection, with totals for each category and subcategory;*
 - (II) *The actual expenditures for each category and subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*
 - (III) *The percentage of actual expenditures over or under the budget for each category or subcategory listed pursuant to sub clause (I) of this clause; and*
 - (IV) *The actual expenditures for the preceding reporting year for each category or subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.*

(i) BUDGET CATEGORY	(I) PROJECTED COST 2015	(II) ACTUAL COST 2015	(III) %OVER/(UNDER) 2015	(IV) ACTUAL COST 2014
Scheduled Vegetation Management (Proactive Tree Trimming)	\$23,300,000	\$22,145,773	-5%	\$18,879,280
Unscheduled Vegetation Management (Reactive Tree Trimming)	\$3,487,787	\$4,369,782	25.3%	\$3,432,029
Tree Risk Management (Proactive Hazard Tree Removal)	\$1,000,000	\$508,309	-49.2%	\$633,231
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	\$535,401	\$1,063,238	98.6%	\$554,133
TOTAL	\$28,323,188	\$28,087,102	-0.8%	\$23,498,673

(ii) *An explanation of the variation from the preceding year's vegetation management budget where actual expenditures in any category or subcategory fell below 98 percent or increased above 110 percent of the budget for that category.*

(i) BUDGET CATAGORY	(ii) EXPLANATION
Scheduled Vegetation Management (Proactive Tree Trimming)	<ul style="list-style-type: none"> • Though actual spend was less than planned for this category, the Company met its 2015 on-cycle goal threshold for circuit trimming. • The loss of planned trimming production due to abnormally heavy rainfall in the spring months was the largest factor that affected the variance in the Scheduled Vegetation Management budget for 2015. Vendors were unable to provide additional labor resources to make-up production losses. • Labor was also required to support necessary capital project deadlines. • The impact of this labor deficit was partially offset by a lower number of hazard tree removals from what was experienced from the previous years.
Unscheduled Vegetation Management (Reactive Tree Trimming)	<ul style="list-style-type: none"> • Unplanned expenditures were higher to address miscellaneous reliability issues caused by localized weather events and fast growing tree species (i.e. "cycle-busters") as identified by Company operations personnel on circuits not due for proactive trimming. • Circuit reconfigurations made to balance distribution load caused portions of distribution circuits to require unplanned trimming to match the vegetation clearance for the current circuit configuration. • There were less "unplanned" hazard tree removal requests than had been budgeted, offset by premium pricing and overtime needed to provide labor resources addressing identified reliability issues as noted in the first bullet for this category.
Tree Risk Management (Proactive Hazard Tree Removal)	<ul style="list-style-type: none"> • There was a lower hazard tree identification rate than anticipated. • The projected cost estimates included in the

	budget were based on the previous year's actual experience, which included greater impacts due to the drought conditions.
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	<ul style="list-style-type: none"> Abnormally heavy rainfall in the spring of 2015, followed by smaller, more localized thunderstorm/wind events later in the year contributed to this category's variance for 2015.

(iii) *The total vegetation management expenditures divided by the number of electric points of delivery on the utility's system, excluding service drops.*

TOTAL 2015 VEGETATION MANAGEMENT EXPENDITURES	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$28,087,102	2,394,231	\$11.73

(iv) *The total vegetation management expenditures, including expenditures from the storm reserve, divided by the number of customers the utility served.*

TOTAL 2015 VEGETATION MANAGEMENT EXPENDITURES INCLUDING STORM RESERVE	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$28,558,914	2,394,231	\$11.93

(v) *The vegetation management budget from the utility's last base-rate case.*

The vegetation management budget from the last rate case with a 2009 test year was \$18,849,952.



Control Number: 41381



Item Number: 45

Addendum StartPage: 0

PROJECT NO. 41381

REPORT FOR VEGETATION §
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 §

PUBLIC UTILITY COMMISSION

OF TEXAS

PUBLIC UTILITY COMMISSION
FILING CLERK

RECEIVED
MAY -1 AM 11:19

VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96

Contact: Sheri Moore
Telephone: 512-397-3047
Fax: 512-397-3050
sheri.moore@CenterPointEnergy.com

Table of Contents

	Page
Pleading.....	2
Attachment A - Report.....	3
P.U.C. Subst. R. 25.96(d).....	4
P.U.C. Subst. R. 25.96(e)(1).....	5
P.U.C. Subst. R. 25.96(e)(2).....	7
P.U.C. Subst. R. 25.96(e)(3).....	7
P.U.C. Subst. R. 25.96(e)(4).....	8
P.U.C. Subst. R. 25.96(e)(5).....	8
P.U.C. Subst. R. 25.96(e)(6).....	9
P.U.C. Subst. R. 25.96(e)(7).....	9
P.U.C. Subst. R. 25.96(f)(1).....	11
P.U.C. Subst. R. 25.96(f)(2).....	14

45

000000

PROJECT NO. 41381

**REPORT FOR VEGETATION § PUBLIC UTILITY COMMISSION
MANAGEMENT PLAN PURSUANT TO §
P.U.C. SUBST. R. §25.96 § OF TEXAS**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PURSUANT TO P.U.C. SUBST. R. 25.96**

Pursuant to P.U.C. Subst. R. 25.96, CenterPoint Energy Houston Electric, LLC submits the attached summary of its vegetation management plan to the Public Utility Commission of Texas.

Respectfully submitted,



SHERI MOORE
Manager of Regulatory Affairs
1005 Congress, Suite 650
Austin, Texas 78701
(512) 397-3047
(512) 397-3050 (fax)

ATTACHMENT A

**Vegetation Management Report
Submitted May 1, 2017**

**VEGETATION MANAGEMENT REPORT
OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
FOR 2017**

Introduction

P.U.C. Subst. R. 25.96 requires each utility to file with the Public Utility Commission of Texas (“the Commission”) by May 1st of each year a summary of its Vegetation Management Plan (“Plan”) for the current calendar year and its progress in implementing its Plan for the preceding calendar year. CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy” or “the Company”) submits the following summary of its vegetation management plan pursuant to the Commission’s rules.

I. P.U.C. Subst. R. 25.96(d)

P.U.C. Subst. R. 25.96(d) requires each utility to provide an explanation in the utility’s annual report of deviations from several mandatory provisions in national standards. The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(d)(1)

ANSI Standard Z133.1, Arboricultural Operations – Pruning, or successor standard.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard Z133.1. Therefore, CenterPoint Energy does not have deviations from the provisions of ANSI Standard Z133.1.

B. P.U.C. Subst. R. 25.96(d)(2)

ANSI Standard A300 (Part 1), Tree Shrub, and Other Woody Plant Management – Standard Practices (Pruning); (Part 7), Integrated Vegetation Management a. Utility Rights-of Way practices; and (Part 9), Tree Risk Assessment a. Tree Structure Assessment, or successor standards.

CenterPoint Energy’s vegetation management contracts require its vendors to follow ANSI Standard A300 (Parts 1 & 9) where applicable. CenterPoint Energy’s vegetation management policies for distribution facilities do not conform to all provisions of Part 7 of ANSI

A300. Due to the numerous site alternatives in urban, suburban, or rural settings with limited utility control of long-term actions of the various stakeholders and utility rights unique for each site, full implementation is not practical due to the costs involved. However, various methods for specific situations may be utilized as appropriate to achieve limited objectives.

C. P.U.C. Subst. R. 25.96(d)(3)

National Electrical Safety Code Section 218, or successor standard.

CenterPoint Energy does not have known deviations from the provisions of Section 218 of the National Electrical Safety Code (“NESC”).

II. P.U.C. Subst. R. 25.96(e)

P.U.C. Subst. R. 25.96 requires each utility to maintain a Plan that “describes the utility’s objectives, practices, procedures, and work specifications for its distribution assets.” The following information is provided in compliance with the Commission’s rule.

A. P.U.C. Subst. R. 25.96(e)(1)

Tree pruning methodology, trimming clearances, and scheduling approach.

- Methodology

CenterPoint Energy’s proactive vegetation management program for the distribution system prioritizes circuits for trimming based on each circuit’s trim cycle and the reliability of each circuit. All circuits that initially meet the cycle trim criteria are then ranked and prioritized based on customer-minutes of outage due to vegetation and wind.

The trim cycle for 35 kV circuits and those 12 kV circuits with narrow easements or restricted access is three years. The trim cycle of 12kV circuits with normal easements is five years. Laterals along with the feeder-main are trimmed on circuits identified for trimming. Since 35 kV circuits are inherently longer than 12 kV circuits and have many more customers, the priority list of 35 kV circuits is determined separately from the priority list of 12 kV circuits to provide a fair analysis.

The distribution system has been divided into seven regions to better distribute the work among the vegetation contractors and to provide an opportunity for the contractors to bid for a larger portion of proactive work, not just a single circuit, allowing the best opportunity for the most efficient use of resources. The contractor that is awarded a specific region is also responsible for the reactive tree trim maintenance and the proactive hazard tree work in that region, again providing for more overall efficiencies.

Approximately 75% of the circuit vegetation management work is on a fixed price basis with the remainder of the costs on a time and equipment basis. Fixed price work is primarily allocated to circuits with extensive feeder and lateral networks that are in outlying areas of the system or that are otherwise conducive to fixed price bids. Time and equipment work is allocated strategically for smaller circuits, which include those circuits close to vendor parking locations, those with problems that require quicker action than a bid process will allow, and for other situations not conducive to fixed price bids.

The vegetation management personnel at CenterPoint Energy prepare work maps of circuits identified for fixed price work. Once completed, these maps as well as trimming specifications are released to the vendors for field review. The vendors submit bids to complete tree trimming on the circuits for each region. The vegetation management personnel review the bids and award the work for each region to the best valued provider based on pricing, available resource capacity, and performance as determined from previous performance audits of the vendors' completed work. When the work is completed, the CenterPoint Energy forester inspects the job to ensure that it was completed satisfactorily and reviews the invoices to ensure accuracy. CenterPoint Energy foresters and vendors interface with the customers as needed to resolve issues and facilitate completion of the work.

Distribution vegetation management work is administered and coordinated by a staff of one manager, nine professional utility foresters, one compliance specialist, one mapping technician, and one support analyst. Currently, five professional Line Clearance vendors perform utility tree trimming services for CenterPoint Energy.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed

vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- Scheduling

CenterPoint Energy identifies circuits eligible for proactive work each calendar year based on the three-year and five-year cycles. Circuits identified as eligible for proactive work are then prioritized by reliability performance. Once the list of planned circuits is generated for each region, actual scheduling for specific circuits during the year may vary based on developing reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

B. P.U.C. Subst. R. 25.96(e)(2)

Methods used to mitigate threats posed by vegetation to applicable distribution assets.

Unscheduled or reactive tree trim maintenance is performed by CenterPoint Energy to address vegetation issues that require immediate attention. This work is done in response to specific requests from customers or CenterPoint Energy personnel located at the Service Centers. Customer requests are received by CenterPoint Energy personnel and routed to assigned vendors for inspection to ensure validity. If valid, the trees are trimmed or removed to clearance specifications. Vendors also receive work orders directly from the Service Centers and conduct work per standard line clearance specifications or specific instructions on the work request. Most reactive work is performed on a unit-priced basis.

C. P.U.C. Subst. R. 25.96(e)(3)

Tree risk management program.

In addition to those hazard trees identified and removed as part of scheduled and unscheduled circuit maintenance, CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

D. P.U.C. Subst. R. 25.96(e)(4)

Participation in continuing education by the utility's internal vegetation management personnel.

Most of CenterPoint Energy's utility vegetation management personnel are degreed foresters or otherwise degreed with extensive experience within the utility vegetation management industry. Company foresters are expected to maintain Texas Department of Agriculture Non-Commercial Pesticide Applicator licenses that require ongoing annual continuing education units. Several of the foresters independently maintain International Society of Arboriculture Certified Arborist status. The Company does not require this status due to the formal educational requirements for the positions; however, those foresters that maintain their certifications are supported in acquiring necessary continuing education units related to the work. The foresters also attend various industry related professional conferences, seminars, and training as available and beneficial to support educational development associated with vegetation management.

E. P.U.C. Subst. R. 25.96(e)(5)

Estimate of the miles of circuits along which vegetation is to be trimmed or method for planning trimming work for the coming year.

CenterPoint Energy estimates that 3,500 to 5,500 miles of distribution circuits will be identified as planned for trimming each year. The miles identified as planned for trimming are based on the circuits that have higher reliability issues and have been prioritized accordingly.

F. P.U.C. Subst. R. 25.96(e)(6)

Plan to remediate vegetation-caused issues on feeders which are on the worst vegetation-caused performing feeder list for the preceding calendar year's System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(e)(7)

Customer education, notification, and outreach practices related to vegetation management.

CenterPoint Energy utilizes customer notifications and public awareness campaign strategies to provide customer education and notifications related to vegetation management. CenterPoint Energy intends to continue these efforts.

- Customer Notifications of Work to be Performed

CenterPoint Energy vendors are required to distribute customer notification door cards at residences and businesses at least seven days prior to planned tree pruning activities. CenterPoint Energy's door hanger notification is available to the Commission Staff upon request. It includes the vendor's contact information to allow the customer to set an appointment to provide access, discuss planned work activities and concerns, and arrange to be present while work is done. CenterPoint Energy also provides a *Tree Trimming Practices* brochure with the work notification door card. The brochure is available to the Commission Staff upon request. It explains general practices and responses to frequently asked questions. These two items are the primary method of pre-work notification.

The brochure has been a successful tool for answering questions and providing the public with an educational visual aid. In addition, CenterPoint Energy provides a *Palm Trees* brochure selectively to those customers with palm trees explaining issues unique to palms and power lines. These brochures and the door card provide significant information to the recipient, while also pointing them to additional information on the CenterPointEnergy.com/trees website.

CenterPoint Energy believes that these documents aide in setting expectations to minimize misconceptions and prompts discussions of concerns before the work is performed.

- Non-Print Media Used in Public Education Campaign

CenterPoint Energy utilizes a landing page on its website dedicated to vegetation management, which may be found at CenterPointEnergy.com/trees. This section of the main CenterPoint Energy website provides information on tree planting guides, how to plant and trim trees safely, power line friendly trees, Right Tree Right Place information, energy saving tips, vegetation management practices, frequently asked questions, the *Tree Trimming Practices*, *Palm Trees and Power Lines* brochures, and information on tree trimming vendors. Examples of information available from these sites include Power Line Clearance Standards, Recommended List of Low Growing Trees, and What My Pruned Trees Will Look Like. Each public education tool warns the public to use caution when pruning trees around power lines and to plant the right tree in the right place, which is away from power lines.

- Other Media Events

CenterPoint Energy partners with a number of parks, community groups, and other organizations around the Greater Houston area for tree planting events, which replace potentially hazardous trees near power lines with low-growing, power line-friendly trees. The events garner involvement from local parks and recreation departments, government officials and stakeholder organizations, as well as interested citizens in the communities. The resulting media coverage, community relationships, dissemination of collateral material, and permanent park signage help to reinforce the Right Tree Right Place message long after the completion of the event.

CenterPoint Energy has partnered with Trees for Houston to establish a Right Tree Right Place nursery on Company property as a source of low-growing power line compatible tree species for various events. The objectives are to further enhance key customer relationships, provide successful growing stock as examples of power line “friendly” trees, and build employee engagement.

CenterPoint Energy’s Speakers Bureau employee volunteers are available to make presentations to area civic associations about vegetation management and provide materials. Employees who work directly with vegetation management and electric operations also make

similar presentations at meetings for municipal officials, homeowner's associations, landscape architects, builders, or other community groups, upon request.

III. P.U.C. Subst. R. 25.96(f)(1)

P.U.C. Subst. R. 25.96 requires each utility to file a Vegetation Management Plan Report that summarizes its Plan and provide its progress in implementing the Plan. The following information is provided in compliance with the Commission's rule.

A. P.U.C. Subst. R. 25.96(f)(1)(A)

Vegetation maintenance goals and the method the utility employs to measure its progress.

CenterPoint Energy's vegetation maintenance goal is to work between an estimated 3,500 to 5,500 miles of targeted distribution circuits annually to proactively maintain vegetation clearance on the distribution system. The Company will measure its progress by monitoring the completed miles worked within a given year to stay within the defined range of planned circuit miles.

B. P.U.C. Subst. R. 25.96(f)(1)(B)

Trimming clearances and scheduling approach.

- Clearances

CenterPoint Energy trims trees for a minimum lateral clearance of seven feet from 12 kV and ten feet from 35kV primary conductors and equipment. This clearance pattern is followed vertically to achieve overhead clearance space above the conductors to a distance at least twice the height of the pole if work is performed manually or as high as a lift truck or mechanized clearance equipment can reach. Trees beneath the primary conductors are trimmed a minimum clearance of 15 feet below the lines.

In addition, a radius of three feet is cleared for twisted-wire secondary and neutral wires or five feet for open-wire secondary. This is often achieved with the clearance attained for the primary conductors. Vines are either cut and the stump treated or basal treated with herbicides

on poles and down guys. Trees may be cleared from guywires as necessary to maintain structural integrity of the facilities.

- Scheduling

CenterPoint Energy identifies circuits eligible for proactive work each calendar year based on the three-year and five-year cycles. Circuits identified as eligible for proactive work are then prioritized by reliability performance. Once the list of planned circuits is generated for each region, actual scheduling for specific circuits during the year may vary based on developing reliability issues, optimizing for crew and equipment efficiencies, maintaining sensitivity to the community, and other issues historically unique to specific circuits.

C. P.U.C. Subst. R. 25.96(f)(1)(C)

Plan to remediate vegetation-caused issues on feeders that are on the vegetation-caused worst performing feeder list for the preceding calendar year's SAIDI and SAIFI.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(1)(D)

Tree risk management program.

CenterPoint Energy utilizes a proactive hazard tree removal program that involves Level 1 tree risk assessments as defined in Part 9 of ANSI Standard A300. In high risk areas, hazard trees outside of the easement are proactively located and removed with the consent of the landowner. The intent of this initiative is to reduce the risk of falling trees impacting electrical facilities and to minimize impacts in an extreme storm event. CenterPoint Energy will perform a patrol of the feeder-mains for those circuits known for higher tree mortality or otherwise identified as high risk areas. Frequency of inspections may vary based on conditions observed.

E. P.U.C. Subst. R. 25.96(f)(1)(E)

Approach to monitoring, preparing for and responding to adverse environmental conditions such as drought and wildfire danger that may impact its vegetation management policies and practices.

CenterPoint Energy does not have a specific drought and wildfire danger plan. However, the Company continuously monitors and adjusts plans as needed for adverse conditions to address impacts unique to nature of the occurrences. This includes updating and maintaining mutual assistance contracts with vegetation management vendors to supplement current resources as conditions require.

F. P.U.C. Subst. R. 25.96(f)(1)(F)

Total overhead distribution miles in its system, excluding service drops.

As of December 31, 2016, CenterPoint Energy has 27,841 miles of overhead distribution lines. This includes 12 kV and 35 kV overhead feeder-main, laterals, and secondary conductor, excluding service drops.

G. P.U.C. Subst. R. 25.96(f)(1)(G)

Total number of electric points of delivery.

As of December 31, 2016, CenterPoint Energy has 2,417,035 electric points of delivery.

H. P.U.C. Subst. R. 25.96(f)(1)(H)

Amount of vegetation-related work it plans to accomplish in the current calendar year to achieve its vegetation management goals described in subparagraph (A) of this paragraph.

During 2017, CenterPoint Energy plans to target an estimated 3,500 to 5,500 miles of distribution circuits to proactively maintain vegetation clearance on the distribution system.

I. P.U.C. Subst. R. 25.96(f)(1)(I)

Vegetation management budget, divided into the categories listed in clauses (i)-(iv) of this subparagraph. The utility should, within the confines of its own budgeting practices, assign subcategories and list them under these categories where appropriate. If a utility does not budget amounts under any specific category, the utility shall provide a brief explanation of why

it does not do so. The utility shall title the budget with the dates it covers and provide a total for each category or subcategory.

Distribution Vegetation Management Budget for January 1, 2017 – December 30, 2017

(i) Scheduled Vegetation Maintenance (Proactive Tree Trimming)	\$22,730,000
(ii) Unscheduled Vegetation Maintenance (Reactive Tree Trimming/Removal)	\$4,067,000
(iii) Tree Risk Management (Proactive Hazard Tree Removal)	\$750,000
(iv) Emergency and Post Storm Activities	\$892,280
Total	\$28,439,280

IV. P.U.C. Subst. R. 25.96(f)(2)

P.U.C. Subst. R. 25.96(f)(2) requires each utility to file an implementation summary for the preceding year of its Plan. The following information is provided in compliance with the Commission’s rule.

A. P.U.C Subst. R. 25.96(f)(2)(A)

Whether the utility met its vegetation maintenance goals and how its goals have changed for the coming calendar year based on the results.

For 2016, CenterPoint Energy proactively worked approximately 4,400 miles of distribution circuits. The Company met its goal by proactively completing the number of circuit miles within the defined annual range for the 2016 annual strategy.

For 2017, CenterPoint Energy’s vegetation maintenance goal is to work between an estimated 3,500 to 5,500 miles of targeted distribution circuits to proactively maintain vegetation clearance on the distribution system.

B. P.U.C. Subst. R. 25.96(f)(2)(B)

Successes and challenges with the utility’s strategy, including obstacles faced, such as property owner interference, and methods employed to overcome them.

CenterPoint Energy successfully met its 2016 goals as noted in the previous section; however there were challenges.

The recent cost increases by vegetation management contractors is the greatest challenge for the Company's vegetation management program. CenterPoint Energy plans to continue to research new ways to identify improvements in optimizing vegetation investments throughout 2017 while insuring the distribution system vegetation is proactively maintained.

The vegetation management contractors continued to express difficulties hiring and retaining qualified, experienced workers capable of performing tree clearing work near energized power lines. This is a common theme within the industry the last few years and is one of the issues affecting costs. The Company conducted a number of meetings with the contractors to explore causes and adjusted work strategies to attempt to support available labor resource retention. This resulted in the region concept methodology noted earlier in the report.

Negative public perceptions surrounding utility vegetation management activities are an ongoing challenge. CenterPoint Energy's Community Relations Department employed an experienced utility arborist to coordinate vegetation management public education efforts and to further support the vegetation management program staff. These efforts along with those of the Company's vegetation management staff have maintained positive perceptions and enhanced working relationships with various interested stakeholders. This work has been acknowledged by the Arbor Day Foundation's annual recognition of CenterPoint Energy as a TreeLine USA Utility for thirteen consecutive years.

Property owner interference is an ongoing challenge inherent to the work activities. As previously noted, the Company employs a staff of professional foresters who work with these individuals daily to resolve conflicts.

CenterPoint Energy is currently working with Texas A&M University to develop analytics to identify areas across the service area with the greatest risk for vegetation caused outages. The analytics will utilize distribution network and outage data, weather data, and comprehensive vegetation data, including soil characteristics. While this research is still currently underway, it is clear that a better understanding of the factors contributing to vegetation growth along distribution circuits can result in the establishment of appropriate trimming cycles to better match the need of each individual circuit.

C. P.U.C. Subst. R. 25.96(f)(2)(C)

The progress and obstacles to remediating issues on the vegetation-caused, worst performing feeders list as submitted in the preceding year's report.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages; therefore, the Company does not have a plan to remediate these issues. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

D. P.U.C. Subst. R. 25.96(f)(2)(D)

The number of continuing education hours logged for the utility's internal vegetation management personnel, if applicable;

CenterPoint Energy vegetation management personnel participated in 200.5 hours of continuing education in 2016.

E. P.U.C. Subst. R. 25.96(f)(2)(E)

The amount of vegetation management work the utility accomplished to achieve its vegetation management goals described in paragraph (1)(A) of this subsection.

CenterPoint Energy completed approximately 4,400 miles of proactive vegetation maintenance in 2016.

F. P.U.C. Subst. R. 25.96(f)(2)(F)

The separate SAIDI and SAIFI scores for vegetation-caused interruptions for each month and as reported for the calendar year in its Service Quality Report filed pursuant to 25.52 of this title (relating to Reliability and Continuity of Service) and 25.81 of this title (relating to Service Quality Reports), at both the feeder and company level.

CenterPoint Energy does not track feeder performance based on vegetation-caused outages. Pursuant to P.U.C. Subst. R. 25.52, the Company tracks feeders for the 10% worst performing circuits based on SAIDI and SAIFI criteria, which includes forced interruptions.

G. P.U.C. Subst. R. 25.96(f)(2)(G)

The vegetation management budget, including, at a minimum:

- (i) A single table with columns representing:
 - (I) The budget for each category and subcategory that the utility provided in the preceding year pursuant to paragraph(1)(I) of this subsection, with totals for each category and subcategory;
 - (II) The actual expenditures for each category and subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.
 - (III) The percentage of actual expenditures over or under the budget for each category or subcategory listed pursuant to sub clause (I) of this clause; and
 - (IV) The actual expenditures for the preceding reporting year for each category or subcategory listed pursuant to sub clause (I) of this clause, with totals for each category or subcategory.

(i) BUDGET CATEGORY	(I) PROJECTED COST 2016	(II) ACTUAL COST 2016	(III) %OVER/(UNDER) 2016	(IV) ACTUAL COST 2015
Scheduled Vegetation Management (Proactive Tree Trimming)	\$22,127,000	\$24,175,318	9.3%	\$22,145,773
Unscheduled Vegetation Management (Reactive Tree Trimming)	\$3,656,296	\$4,937,178	35.0%	\$4,369,782
Tree Risk Management (Proactive Hazard Tree Removal)	\$750,000	\$339,213	-54.8%	\$508,309
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	\$836,982	\$667,180	-19.1%	\$1,063,238
TOTAL	\$27,370,278	\$30,128,889	10.1%	\$28,087,102

- (ii) An explanation of the variation from the preceding year's vegetation management budget where actual expenditures in any category or subcategory fell below 98 percent or increased above 110 percent of the budget for that category.

(i)	(ii)
------------	-------------

BUDGET CATAGORY	EXPLANATION
Scheduled Vegetation Management (Proactive Tree Trimming)	<ul style="list-style-type: none"> • Within range for 2016 expenditures, no explanation required.
Unscheduled Vegetation Management (Reactive Tree Trimming)	<ul style="list-style-type: none"> • Unplanned expenditures continued to be high to address miscellaneous reliability issues caused by localized weather events and fast growing tree species (i.e. "cycle-busters") as identified by Company operations personnel. • Circuit reconfigurations made to balance distribution load caused portions of distribution circuits to require unplanned trimming to match the vegetation clearance for the current circuit configuration. • There were a significant number of non-standard unplanned projects requiring premium pricing and overtime to provide the labor resources capable of addressing identified reliability issues.
Tree Risk Management (Proactive Hazard Tree Removal)	<ul style="list-style-type: none"> • There continued to be a lower hazard tree identification rate than anticipated.
Emergency and Post Storm Activities (Storm Restoration: AD86, AD07)	<ul style="list-style-type: none"> • Other than a few isolated heavy rainfall events, less restoration work was experienced throughout 2016 than anticipated.

(iii) *The total vegetation management expenditures divided by the number of electric points of delivery on the utility's system, excluding service drops.*

TOTAL 2016 VEGETATION MANAGEMENT EXPENDITURES	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC POINTS OF DELIVERY
\$30,128,889	2,417,035	\$12.47

(iv) *The total vegetation management expenditures, including expenditures from the storm reserve, divided by the number of customers the utility served.*

TOTAL 2016 VEGETATION	ELECTRIC POINTS OF DELIVERY	(iii) VM COST/ELECTRIC
--------------------------	--------------------------------	---------------------------