



STATE OF CONNECTICUT

**PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051**

DOCKET NO.

**PURA REPORT TO THE GENERAL ASSEMBLY
CONCERNING ITS REVIEW OF EACH ELECTRIC
DISTRIBUTION COMPANY'S VEGETATION
MANAGEMENT PRACTICES**

June 17, 2015

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DECISION

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DECISION

I. INTRODUCTION

A. BACKGROUND OF THE PROCEEDING

Public Act 14-151, An Act Concerning Tree Trimming (Act), Section 2, now codified as Section 16-32k of the General Statutes of Connecticut (Conn. Gen. Stat.), required the Public Utilities Regulatory Authority (Authority or PURA), not later than June 24, 2015,¹ and every two years thereafter, in accordance with the provisions of §11-4a of the Conn. Gen. Stat., provide a report to the joint standing committee of the General Assembly having cognizance of matters relating to energy. The Act also required that the Department of Energy and Environmental Protection (DEEP) review the electric distribution companies'² (EDC) vegetation management³ practices. This report is to include a review of the VM practices of each EDC.

This docket was initiated to form the basis of the administrative record of the Authority's report.

The Connecticut Light and Power Company d/b/a Eversource Energy (CL&P) and The United Illuminating Company (UI) filed their respective VM plans on December 31, 2014, in Docket No. 14-12-28, PURA Review of Electric Companies' and Electric Distribution Companies' Plans for Maintenance of Transmission and Distribution Overhead and Underground Lines (Maintenance Docket). The EDCs' VM plans were also submitted in this proceeding.

B. CONDUCT OF THE PROCEEDING

By Notice of Hearing dated March 12, 2015, the Authority announced that a hearing would be held at its offices in New Britain, CT on April 1, 2015. That hearing was held. By Notice of Close of Hearing dated June 4, 2015, the hearing was closed.

A proposed final Decision was issued on June 4, 2015. All Participants were given the opportunity to file written exceptions and to present oral arguments addressing that Decision.

C. PARTICIPANTS

A listing of all Participants is appended hereto as Appendix A.

D. PUBLIC COMMENT

¹ This is one year after the issuance of the Authority's Decision in Docket No. 12-01-10 PURA's Investigation into the Tree Trimming Practices of Connecticut Utility Companies (Tree Trimming Decision). This Decision provides the Authority's requirements for utility VM practices. Conn. Gen. Stat. §16-234, effective June 6, 2014, provides the statutory requirements for utility VM practices. In the Tree Trimming Decision, the Authority invited the DEEP Division of Forestry (DOF) to participate in this proceeding in conducting its review of the EDCs' VM practices.

² A utility may perform vegetation management within the utility protection zone, as necessary, to secure the reliability of utility services. Conn. Gen. Stat. §16-234(a)(7)(b).

³ Vegetation management means the retention of trees and shrubs that are compatible with the utility infrastructure and the pruning or removal of trees, shrubs or other vegetation that pose a risk to the reliability of the utility infrastructure. Conn. Gen. Stat. §16-234(a)(4).

There were ten written comments filed via email, and four speakers presented comments during the April 1, 2015 hearing. These comments concerned VM work, tree aesthetics and the overall benefit of trees.

Representative Michael D'Agostino of Hamden and one town resident expressed concern over UI's claim that it received a low number of objections in Hamden even though a large number of residents there expressed opposition to the company's enhanced tree trimming (ETT) program in Docket No. 12-01-10. Representative D'Agostino stated that the area of trimming performed in Hamden was not representative of other areas of the town, and he believed UI's approach to VM was to cut all tall growing trees in the utility protection zone (UPZ)⁴. He was also concerned that the company had not provided its 2015 VM plans to the town.

II. AUTHORITY ANALYSIS

A. TREE TRIMMING DECISION

In the Tree Trimming Decision, the Authority reviewed the public utility companies' tree trimming and vegetation removal practices and requirements. Many recommendations and requirements were reviewed and directed in prior proceedings to make the utility company infrastructure more resilient to storm damage, and to promote shorter restoration times following outages from similar weather-related events. The EDCs have VM plans with significantly increased budgets for the next five to eight years that were approved in their last rate case proceedings. Decision dated June 30, 2010, in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules; Decision dated August 14, 2013, in Docket No. 13-01-19, Application of The United Illuminating Company to Increase Rates and Charges. The Tree Trimming Decision also clarified the practices, procedures and requirements for public utility company vegetation management provisions to comply with the legislative mandates of the Act. Tree Trimming Decision, pp. 12-23.

Additionally, the Authority required that the EDC VM plans meet the requirements of Conn. Gen. Stat. §16-234. The 2015 VM plans are also required to include data on property owner acceptance of electric company 2015 proposed VM work and tree-related work data. Id., p. 1,

B. EDCs VEGETATION MANAGEMENT PLANS

The EDC VM plans contain descriptions of the type of work that is performed to maintain clearance from vegetation located along transmission and distribution overhead lines so the electric system is maintained in a reliable and safe condition. The plans contain company procedures, standards, notices to property owners, and practices that are designed to meet industry, statutory and Authority requirements. Certain customer and tree data is also included in the plan. Id., pp. 12-23. Due to the

⁴ The utility protection zone means any rectangular area extending horizontally for a distance of eight feet from any outermost electrical conductor or wire installed from pole to pole and vertically from the ground to the sky. Conn. Gen. Stat. §16-234(a)(2).

damage and extended power outages caused by three catastrophic storms that occurred in 2011 and 2012,⁵ and customer opposition to new EDC practices in 2014, the requirements in the VM plans were increased in 2014.

1. CL&P VM Plans

The CL&P VM budget for 2015 is \$67 million and includes \$22.8 million for ETT work. CL&P planned to perform VM along 4,116 miles of distribution lines including 623 miles of ETT in 2015. Response to Interrogatory EN-11, p. 4. CL&P has approximately 16,830 pole line miles carrying primary conductors. Response to Interrogatory DEEP-24.

During the period January through November 2014, CL&P received 101,272 property owner consents to perform its proposed VM work. There were 2,519 non-responses and 1,017 requests for modification of which 198 were upheld by tree wardens. Response to Interrogatory EN-11, pp. 9 and 14. CL&P received 2,130 objections that included 971 objections to trimming trees and 1,159 objections to tree removals. Response to Interrogatory EN-11, pp.1 and 5. The tree wardens upheld 39 of those objections. Response to Interrogatory EN-11, p. 8. This data results in a CL&P consent rate of 97%, a modification rate of 1% and an objection rate of 2%. Tr. 4/1/15, pp. 77 and 78. The Authority received approximately 12 requests to review VM planned for individuals' property and successfully mediated mutually agreeable results with the EDCs and the property owners.

During the six-month period June through November 2014, CL&P indicated that 11,495 trees were assessed as hazardous,⁶ 9,931 trees were assessed as non-hazardous while 4,315 non-hazardous trees were removed. Response to Interrogatory EN-11, pp. 13 and 17. Most of the tree removal objections occurred along backbone circuits which often follow main roads in a town. Response to Interrogatory EN-12. In 2014, CL&P installed 183 right-tree, right-place (RTRP)⁷ tree replacements and performed 173 stump grindings. Response to Interrogatory EN-11, pp. 19 and 20.

CL&P is continuing to improve its VM practices. It is in the process of implementing a company-wide Geographic Information System (GIS)-based enterprise system to plan, schedule, track and report on VM activities that will be fully implementation by the end of 2015. It is also participating in an EPRI Distribution Grid Resiliency (DGR) Project with other utilities from across the country that will review VM programs to identify best practices and alternative approaches. This project is scheduled to be completed by the end of 2015. Response to Interrogatory EN-21. Lastly, CL&P is contributing to research of tree behavior being conducted by the University of Connecticut in the Stormwise program. Response to Interrogatory EN-23.

⁵ Tropical Storm Irene occurred on August 28, 2011, resulting in 815,000 total peak power outages, the October Snowstorm occurred on October 29, 2011, resulting in 832,000 total peak power outages. Storm Sandy occurred on October 28, 2012, resulting in 657,000 total peak power outages. Tree Trimming Decision, p. 6.

⁶ Hazardous trees mean any tree or part of a tree that is (a) dead, (b) extensively decayed, or (c) structurally weak, which, if it falls, would endanger utility company infrastructure, facilities or equipment. Conn. Gen. Stat. §16-234(a)(3).

⁷ The RTRP program promotes tree species that are allowed to grow in the UPZ under wires that will not grow into the wires as they mature.

2. UI VM Plan

UI's ETT budget for 2015 is \$12.5 million. In 2014, UI spent \$10.4 million for 164 miles of roadside VM and \$1.2 million for 24 miles of transmission rights of way VM. UI removed 378 hazardous trees and 8,329 non-hazardous trees. Response to Interrogatory EN-46.

From January through November 2014, UI received 4,704 full consents from property owners and 5,469 requests to perform its proposed VM work. Response to Interrogatory EN-48. There were 857 requests for modification of which, 15 objections were upheld by tree wardens. UI VM plan, pp. 65 and 66. This data resulted in a UI consent rate of 86%, a modification rate of 15% and an objection rate of 0.3%. *Id.* The number of hazardous trees located on private property was 296 and the number of non-hazardous trees located on private property was 4,576. Response to Interrogatory EN-52.

Only a small fraction of UI's overhead lines have been cleared to the enhanced clearance specification that was implemented in 2014. Response to Interrogatory EN-25. In 2014, 6.8% of UI's overhead lines were subject to the new VM program, of which, only 2% met the new ETT specification. This low amount was due to property owner objections and requests for modification, a two pass trim cycle⁸ for three phase primary lines, and portions of the circuits in which UPZ clearance was already provided. Response to Interrogatory EN-66.

UI upgraded its tree-related interruption collection process to allow for additional information to be collected such as tree location, the part of trees that caused damage, their condition as well as providing for distinctions for interruptions caused prior to and after UPZ clearance. Through March 24, 2015, UI has evaluated 266 tree-related interruptions and determined that 61% of them occurred within the UPZ. Also, only 11% of those outages were caused by hazardous trees. Responses to Interrogatories EN-66 and CEF-18.

According to UI, there are 857 million trees in Connecticut and only a small fraction (0.035%) are along the roadways in its service territory. The strict adherence to all laws provides for a balance between environmental and electric impacts at the local level while not acting as a detriment to the environment. Tr. 4/1/15, pp. 141 and 142; UI Brief, p. 4. In 2014, UI did not replace any trees and performed 32 stump grindings. UI VM Plan, p. 68.

UI claimed that to date, no customer or municipality provided feedback concerning losses or additional costs incurred due to the VM program that would exceed the benefits to improve electric service during extraordinary weather events. UI also claimed that the majority of municipalities and its customers have been satisfied with the company's program where work has been performed. Response to Interrogatory CEF-2.

⁸ Under the initiation of the ETT program, a two pass trim cycle for three phase primary lines has 50% of the work performed in the first four-year cycle and while the remainder of the work is deferred to the second four-year cycle. In the following four-year cycles, 100% of the work will be performed.

UI improved its VM practices by developing a mobile, computer tablet data collection application used to manage its tree data including the property owner consent, objection and request for modification, and quality control processes. Responses to Interrogatories DEEP-1 and EN-37. That application was demonstrated during the April 1, 2015 hearing.

UI's definition of a hazardous tree was in place before the Conn. Gen. Stat. §16-234 was amended. UI intends to modify its definition the next time it updates its VM Plan. Response to Interrogatory DEEP-16. UI also demonstrated how pruning should be conducted so trees remain in a healthy condition including how proper pruning could occur beyond the 8 foot target clearance of the UPZ, so that the health of a tree is maintained and within suitable line clearance. Response to Interrogatory EN-41, pp. 1 and 2.

3. EDC VM Plan Issues

There were a number of issues raised by some of the Participants in this proceeding. The Authority addresses those issues below:

a. EDC Notices to Property Owners

The Garden Club of New Haven (GCNH) stated that EDC notices to property owners did not include the information required by Conn. Gen. Stat. §16-234. The Connecticut Forest and Park Association (CFPA) and Connecticut Fund for the Environment (CFE) complained of the same issue. The GCNH asserted that the EDC notices must include: 1) the address of the tree warden or the Commissioner of Transportation to which an objection must be made and 2) a statement that property owners objecting to tree trimming may request to meet with the tree warden or the Commissioner of Transportation. GCNH Brief, p. 7; CFE Brief, pp. 5 and 6.

CL&P and its contractors provide brochures and information pamphlets and a proposed work form describing the work to be done on the property or in the public right of way abutting the property. They are also available to discuss the planned work with the property owner at their request. Response to Interrogatory EN-9. In the opinion of CL&P, its VM plan, including the modifications made during this proceeding comply with Conn. Gen. Stat. §16-234. CL&P Reply Brief, p.16.

CL&P stated that it performs vegetation management in 149 towns, and it would be unreasonable to provide the address of each municipal tree warden on 149 different pre-printed forms. A municipal tree warden's name and contact information is available from the town hall. The company does provide the addresses of the DOT and the PURA. Response to Interrogatory EN-16, Attachment 1, Line 28.

UI does not routinely provide notice. UI seeks consent from every abutting property owner to trim or remove trees in the public right of way or on private property. The company's policy is to request written consent through face to face meetings with the property owners or by leaving a door hanger package. This policy involves active participation with the property owner, unlike the notification process where using mail

allows tree trimming work to proceed unless the property owner objects in writing within 10 days. Response to Interrogatory EN-62.

UI testified that it fills in the name and telephone number of the tree warden on its notice. Response to Interrogatory EN-63; Tr. 4/1/15, pp. 162-167.

Conn. Gen. Stat. §16-234(c)(3)(i) states:

The notice shall indicate that (A) objection to pruning or removal shall be filed, in writing, with the utility and either the tree warden of the municipality or the Commissioner of Transportation, as appropriate, ... For purposes of this section, an abutting property owner may file an objection or request for modification by (i) sending a written objection or request for modification to the utility or tree warden at the address for each specified on the notice, provided ...

The Authority recognizes that the EDCs' notices did not contain the details required by Conn. Gen. Stat. §16-234. Based on the CFP, the GCNH and the CFE proceeding comments, CL&P modified its VM plan to include changes to its property owner notification procedures and VM documentation. Response to Interrogatory EN-16. Similarly, UI indicated that it would modify its property owner notice before its next VM plan filing to include a statement that it will not bill for damage caused by a tree. Responses to Interrogatories EN-62 through EN-64.

The Authority will order the EDCs to update their VM plans in the Maintenance Docket to include the modifications identified in the responses to interrogatories EN-16 and EN-62 through EN-64 and employ those modifications and include the address of the town tree warden on its notice until the VM plans are filed in the upcoming 2016 Maintenance Docket.

b. Tree Inspections

The GCNH argued that each utility company should begin its planning process with evaluation and identification of those trees that cannot be pruned to co-exist with distribution lines without significant risk to power reliability. The GCNH recommends that only after that identification has taken place, a permit be sought for removal of such trees, as well as needed pruning, of the remaining non-hazardous trees in accordance with Conn. Gen. Stat. §16-234 (a)(5). In the opinion of the GCNH, this approach would provide the relevant information to the tree wardens which would allow them to inspect the trees scheduled for removal and evaluate them, promoting meaningful communication and an opportunity to protect the community's interests in the trees. GCNH Brief, p. 3.

CL&P indicated that all vegetation that could affect the electrical facilities will be evaluated based on the planned work type. CL&P considers individually each tree's species, its condition such as vigor, disease, defects, and structure, growth rate, failure characteristics and location considering proximity, soil type, and slope in determining the scope of work to be performed. Response to Interrogatory EN-4. The National Electrical Safety Code requires the movement of vegetation during typical weather

conditions plus sag of conductors due to elevated temperatures or icing also be considered when determining the extent of tree work to be performed. Id. CL&P considers for pruning work, the resulting look and risk of the tree. CL&P relays to the property owner, the specific pruning required and final form of the tree and any consideration of removal of the tree as an option if any aspect of the tree could be compromised or unfavorable. Id.

For UI, a permit normally is obtained from the tree warden in advance of the evaluation but in some instances, in the case of a municipality for example, a tree warden permit may be obtained afterward. A permit is required to prune or remove trees, not to plan the work. Response to Interrogatory DEEP-12.

The Authority agrees with the EDCs to request permits before evaluating trees. After an evaluation is made and before VM work can occur, property owner consent is necessary. Property owners also have the right to object and initiate an appeal process. The tree warden can prevent VM work at any time and has the discretion as to when tree evaluation needs must be performed in order to receive a permit.

c. Town Permits

The GCNH claimed that both EDCs seek permits to remove almost all tall growing trees within the UPZ⁹ as part of their ETT programs. The GCNH also claimed that the EDCs have not recognized that Conn. Gen. Stat. §16-234 and the Tree Trimming Decision requires them to abandon their attempts to clear cut within the UPZ using their respective ETT programs. GCNH Brief, p. 4. The GCNH contended that in most towns, tree wardens have limited resources and time. Many are part-time employees or are volunteers. While they are charged by Conn. Gen. Stat. §23-59, to "enforce all provisions of law for the preservation of . . . [public right-of-way] trees and shrubs and of roadside beauty," many tree wardens are unable to evaluate trees when an EDC seeks their removal, leading the warden to grant a blanket permit for tree removal and to rely on property owner objections or requests for modification and on subsequent review by the tree warden. Relying on individual property owner objections or requests for modification will not ensure that trees will only be removed if necessary for power reliability. Therefore, this results in the loss of numerous benefits that healthy, structurally sound roadside trees provide to urban, rural and suburban neighborhoods and towns and to Connecticut as a whole.¹⁰ Id., p. 5.

To fulfill the balanced approach to protect roadside trees and provide for reliable power, GCNH recommended that the EDCs not seek a permit to remove trees without first providing the tree warden with specific information that justifies the proposed removal or pruning. Id., p. 6. The EDCs should also seek permits only after providing evaluations that justify removals and pruning, in order to implement the balanced approach adopted by the Authority. Such a process encourages retention of these non-

⁹ Trees at the outer boundaries of the UPZ may be pruned, but pruning to the ETT specifications could destroy their health or structural integrity, resulting in removal.

¹⁰ If the tree warden posts the tree for which a permit for removal is requested, in accordance with Conn. Gen. Stat. §§23-65(f) and 23-59, any person can object and a tree warden hearing will be held. A tree warden may also hold a hearing on his/her own motion. In this case, community interests may be better protected, but, in practice, not all tree wardens follow the posting requirements or voluntarily hold hearings. GCNH Brief, p. 5.

hazardous trees that, with proper pruning, can co-exist with the utility infrastructure and ensure power reliability. *Id.*, p. 6. The CFE recommended that the Authority should amend Conn. Gen. Stat. to be more specific as to when a permit must be requested by a utility company and that blanket permission is unacceptable. CFE Brief, p. 6.

CL&P stated that it complies with the applicable permitting-related requirements imposed by municipal tree wardens and the Department of Transportation (DOT) within its service territory. When a municipal tree warden or the DOT requires additional permitting-related approvals, the company complies with those requests. Response to Interrogatory CFE-7. CL&P noted that the permitting entity has the authority to modify or revoke the permit at any point. Response to Interrogatory CFE-8.

CL&P stated that Conn. Gen. Stat. §23-65 delegates exclusive authority to municipal tree wardens to decide what information should be included in an application for a permit to trim or remove trees along municipal roads and to decide whether they will issue a permit. Conn. Gen. Stat. §23-65(f) states in relevant part that:

Any person, firm or corporation . . . who desires the cutting or removal, in whole or in part, of any tree or shrub or part thereof within the limits of any public road or grounds, may apply in writing to the town tree warden, the borough tree warden or the Commissioner of Transportation or other authority having jurisdiction thereof for a permit so to do.

Similarly, Conn. Gen. Stat. §13a-140(a) provides similar authority to the DOT to determine what information must be included in an application for a permit to trim or remove trees along state roads and to decide whether the DOT will issue a permit.¹¹ CL&P Reply Brief, p. 13.

In order to obtain a permit, the company provides municipal tree wardens and the DOT with the specific level and type of information each requests. Responses to Interrogatories DEEP-026, DEEP-027, CFE-007 and CFE-008. If the tree warden or the DOT seeks additional information, they request it from the EDC. In addition, CL&P asserts that the GCNH has not provided any record evidence from municipal tree wardens or the DOT that reflects GCNH's proposed permitting process. Similarly, neither tree wardens nor the DOT have requested changes be made to the permitting process. CL&P Reply Brief, p. 15.

CL&P claimed that landowners are not harmed by the Authority's denial of the GCNH and CFE request for PURA involvement in municipal and DOT decisions concerning a permit application information requirement. This is because each landowner has the right pursuant to Conn. Gen. Stat. §16-234 to object to, or request a modification of, the trimming or removal work that the company proposes for their property. CL&P Reply Brief, pp. 15 and 16.

¹¹ Conn. Gen. Stat. §13a-140(a) states in relevant part that "No person, firm or corporation, and no officer, agent or employee of any municipal or other corporation, shall cut, remove or prune any tree, shrub or vegetation situated partially or wholly within the limits of any such highway without first obtaining from said commissioner a written permit therefore, provided however, that nothing contained in this subsection shall limit the rights of public service companies, as defined in §16-1, to cut and trim trees and branches and otherwise protect their lines, wires, conduits, cables and other equipment from encroaching vegetation."

UI seeks a permit from the municipality prior to work planning and adheres to the requirements defined by each municipality's specific permit. Response to Interrogatory CEF-6. UI provides the municipal tree warden or the DOT with as much information necessary. *Id.* UI disagreed with the CFE and the GCNH in that blanket permits undermine the intention of the General Assembly and that the Authority should not include in this report that these permissions are unacceptable. UI Reply Brief, pp. 5 and 6.

UI contended that the legislature has vested exclusive control in a town tree warden over trees located in whole or in part in public roadways. The Authority cannot impose on tree wardens or the DOT, requirements as to the information that should be provided for a tree trimming or removal permit. Nor as a practical matter can the PURA become involved in the municipal process to decide the level and type of information which satisfies that particular municipality's needs. *Id.*, p. 6.

UI asserted that the permits at issue do not concern an individual property owner's right to object to, or request a modification to, the trimming or removal work that UI would typically plan for pursuant to the Conn. Gen. Stat. §16-234. No tree warden or the DOT has raised the issue that the CFE and the GCNH seek to have the Authority address. Tr. 4/1/15, pp. 55 and 56; UI Reply Brief, p. 6.

The permitting issue is beyond the PURA's jurisdiction. Rather, permitting authority lies with the municipal tree warden who oversees town requirements and ordinances and not the PURA. A consent process exists as does the tree warden appeal process and the PURA appeal process that, if the situation requires, would occur before any tree is trimmed or removed.

d. Licensed Arborist

Some of the participants disagree as to whether a licensed arborist can be made responsible for determining adherence to arboricultural standards.

The DOF stated that the EDCs have demonstrated a willingness to work with municipalities and local tree wardens. However, the DOF is concerned that there is a lack of specifics in their respective VM plans relating to the inspection of vegetation work and a lack of clarity with regards to the role of licensed arborists. The DOF claimed that a well-defined VM plan should identify how work is inspected. In particular, the EDCs' VM plans should clearly indicate who is responsible for performing the inspection of the work and the qualifications required of those individuals. The DOF asserted that it is very important that licensed arborists be responsible for this oversight. DOF Brief, p. 1.

The DOF defined an arborist as a professional knowledgeable in the practice of arboriculture who has proved his or her credentials to an appropriate certifying body. In Connecticut, this means an individual who has received an arborist license from the State of Connecticut, through the DEEP, by passing a written DEEP exam and also an oral exam given by the Tree Protection Examining Board. An individual may keep this

license by remaining in good standing with the DEEP and by completing a sufficient number of continuing educational credits on a regular basis. Id., pp. 4 and 5.

The DOF also asserted that the ability to diagnose disease and insect problems and recommend pesticide applications, are not technical competencies. It is this comprehensive understanding that an individual employs diagnosing a tree condition and prescribing treatment. This same knowledge of tree health and proper tree functioning is critical not only to insect and disease management, but also to whether treatments such as pruning are appropriate to a specific tree in a specific location. This type of insight into tree health and proper tree functioning should be an essential element of both the tree inspection process and the assessment of the VM work that has been performed. Id., p. 5.

The DOF also claimed that a key aspect of independent credentialing in a professional field uses standards for the credential that are established apart from the needs or goals of a specific company. This license or certification can be withdrawn from an individual if their work does not meet the standards of the outside entity. This provides a strong check on the company to encourage that its work meets accepted third party professional standards. This is relevant in circumstances in which a company cites cost concerns and limited resources as the reasons for establishing its own standards for quality and reliability. Id., p. 6.

Regarding license and certification, the DOF disagreed with a 1971 opinion of the Attorney General (AG Opinion) because much has changed since it was written. The DOF claimed that it is a mistake to apply 1971 standards to 2015 conditions and disagreed with UI on the use of the AG Opinion. DOF Brief, p. 8. The DOF recommended that EDCs require employees who inspect proposed VM work during the planning process and completed contract work be Connecticut licensed arborists. Also, that EDC VM contractors' supervisors are Connecticut licensed arborists or ISA certified arborists and that those contractors comply with the business registration provisions of the Arborist Law in Conn. Gen. Stat. §23-61g through §23-61m. Id., p. 10.

CL&P claimed that the AG Opinion states that Conn. Gen. Stat. §§23-61a and 23-61b do not require an EDC's vegetation management personnel and contractors to be state-licensed arborists. The AG Opinion reached the conclusion that the legislature only required those persons, who offered to provide such services to the general public for a fee, to obtain an arborist license and stated:

We think it is clear from that definition that the legislative intent is to require that those individuals who hold themselves out to the general public for hire as knowledgeable in the business of caring for trees should be licensed. A person under contract to a utility company merely to keep clear its rights of way does not, in our opinion, fall within either the intent behind or the definition set forth in the custom tree work law.

CL&P Reply Brief, p. 6.

The relevant portions of the statutes the AG quoted are relatively unchanged 46 years later thereby demonstrating that the AG's Opinion is still accurate. CL&P Reply

Brief, p. 6. Because the company's contractors do not engage in arboriculture when working for the company, they are not required to obtain an arboriculture license. Response to Interrogatory DEEP-4.

CL&P explained that it employs licensed arborists to oversee the contractors' work and to perform quality control. They check for the compliance with the contract, specification and the arboricultural standards that are used and are also international standards based on American National Standards Institute (ANSI) standard A300. Tr. 4/1/15, p. 101. CL&P stated that no evidence has been presented that requires EDC contractors to obtain and maintain specific credentials and qualifications related to being a certified arborist. Additionally, CL&P argued that it was unaware that anyone proposed using this proceeding to request changes to the companies' employees and contractors job qualifications. Nor did the PURA's March 12, 2015 Notice of Hearing inform the EDCs or their unions that job qualifications would be addressed and potentially changed in this Docket. CL&P Reply Brief, pp. 7 and 8.

UI indicated that two of its VM employees are certified arborists. However, all of UI's vegetation management employees have experience in the line clearance industry prior to joining UI. UI contended that a diverse mix of experience is valuable in managing line clearance contracts and working with customers and public officials. Requiring a licensed arborist to be responsible for determining adherence to arboricultural standards would limit UI's available resources to perform reviews and unnecessarily increase the cost of the program. UI has ensured that all review personnel are competent in the work that they are tasked to perform. UI Response to Interrogatory DEEP-31.

UI's tree contractors employed two state certified arborists. Response to Interrogatory EN-27. UI provided the same interpretation of the AG Opinion as CL&P. According to UI, it was the Legislature's intent to protect the general public from individuals who should not be caring for their trees while no such protection would be needed for the utility company. UI Reply Brief, pp. 11 and 12. UI also claimed that there is no record evidence in this proceeding to support the DOF's request nor has it been shown that the company's current approach to tree trimming and removal is imprudent or fails to meet applicable industry standards. *Id.*, p. 10.

The Authority finds that the AG Opinion is still applicable to utility company tree trimming. The statute reviewed by the AG is specific in its requirement that arborists provide their services to the public which does not occur when arborist work for an EDC.

e. Oversight of Contractor Work

The DOF stated that it is important that there be consistent and reliable quality control over VM work. Consistent and reliable quality control should be the responsibility of the EDCs. Also, the DOF asserted that when work is being inspected as to whether it follows arboricultural practices and meets industry and ANSI standards, that it should be inspected by a licensed arborist. DOF Brief, p. 4

CL&P responded that the qualifications that an EDC's employees and contractors must satisfy are complex topics that require, among other things, an analysis of applicable collective bargaining agreements for the affected company's employees, existing contracts between the EDC and its contractors, the impact of the requested changes on the future cost to perform this work, the impact of the requested changes on an EDC's ability to timely complete its near-term planned work, and the availability of qualified personnel in the current labor market who meet the proposed new qualifications or who are expected to be able to meet those new qualifications within a specified time frame. No evidence was presented in this proceeding by CL&P on these issues because the company was unaware, until the DOF's brief was filed, that this docket would be used to request changes to the job qualifications of company employees and contractors.

In addition, there is no evidence that indicates the EDCs' tree trimming and removals are imprudent or fail to satisfy applicable industry standards. Further, there is no evidence that the DOF's proposed changes to existing utility company job classifications are necessary to remedy any imprudence or non-compliance with industry standards. CL&P Reply Brief, p. 8.

UI VM employees perform quality control on 100% of the contractor work performed. UI verifies that the specific details regarding the trees that are pruned or removed matches the work as it was planned and that arboricultural practices are followed. UI Response to Interrogatory DEEP-2. UI testified that 95.2% of the work performed by the company's contractors has been determined to be executed in accordance with the company's standards. Tr. 4/1/15, pp. 51-54; UI Mobile Vegetation Management System Presentation, Slide 15; UI Reply Brief, p. 9.

UI claimed that the DOF is critical of the company's desire to move from 100% quality control to a random sampling methodology. UI commented that 100% quality control may not be necessary since 95.2% of the work performed by its contractors has been determined to be executed in accordance with the company's standards. UI Mobile Vegetation Management System Presentation, Slide 15. UI stated that 100% quality control is an expensive endeavor and believes that if additional review of its contractors' work shows a similar performance standard, then a 100% review would only increase the costs of the program without any proven benefit and that a random sample methodology is appropriate. Response to Interrogatory DEEP-030; UI Reply Brief, p. 9.

The record does not support a finding that the EDCs' VM work is not meeting industry standards. No tree warden has complained to the Authority that either EDCs' company's VM work is deficient or does not meet industry standards. UI indicated that 95% of its VM work that is performed by its contractors meet its standards. While the Authority is interested in reviewing more data on the inspection of the VM work, the limitations contained in this proceeding's Notice prevent further investigation now. The Authority hereby places the EDCs on notice that it will address the oversight of contractor work and inspection results in the Maintenance Docket.

f. Tree-Caused Outage Data

i. CL&P Tree-Caused Outages

CL&P provided data in Table 1 below demonstrating the effects that tree trimming has had on the circuits trimmed in 2013. The exhibit compares the number of events and service outages due to trees during 2013 and 2014 to the average number of events and service outages on the same circuits due to trees for the 2009-2012 time period. The impact of trimming in 2013 is reduced because new trimming was being accomplished every month of the year. Calendar year 2014 had the benefit of a full trim year. The outage data includes all storms except for the three catastrophic storms that occurred in 2011 and 2012 which are highlighted in the Notes of Table 1.

Table 1
Effect of 2013 CL&P Tree Trimming Program on Tree-Caused Outages
in 2013 and 2014

2013 VEGETATION MANAGEMENT PROGRAM	Number of Tree-Caused Events				
	2009-2012 (AVERAGE YEARLY)	2013 (TRIM YEAR)	Variance	2014 (POST TRIM)	Variance
LATERAL ETT	113	86	-24%	36	-68%
LATERAL SMT	217	201	-7%	123	-43%
BACKBONE VM PROGRAMS	660	520	-21%	342	-48%
TOTAL 2013 RESILIENCY VM	989	807	-18%	501	-49%

2013 VEGETATION MANAGEMENT PROGRAM	Number of Customer Interruptions				
	2009-2012 (AVERAGE YEARLY)	2013 (TRIM YEAR)	Variance	2014 (POST TRIM)	Variance
LATERAL ETT	11,658	8,636	-26%	4,897	-58%
LATERAL SMT	9,801	7,659	-22%	4,772	-51%
BACKBONE VM PROGRAMS	362,128	258,533	-29%	168,696	-53%
TOTAL 2013 RESILIENCY VM	383,586	274,828	-28%	178,365	-54%

Notes:

- Tree-caused events only. All storm numbers have been included except for Tropical Storm Irene, the October Nor'easter, and Storm Sandy.
- Backbone VM Programs include: Enhanced Tree Removal, Mid-Cycle, ROW Side Trim, Reclaim, Backbone SMT, and Vines.

Late Filed Exhibit No. 1.

Table 1 shows that the number of events due to tree contacts decreased by 18% and the number of customers affected by those events decrease by 28% during the trim year for the circuits that were trimmed in 2013 compared to the 4-year average prior to 2013. Similarly, during the first full year after the full trim was completed, the number of

events due to tree contacts decreased by 49% and the number of customers affected by tree caused outages decrease by 54%. Late Filed Exhibit No. 1.

The GCNH disagreed that the tree-caused outages that decreased in 2013 and 2014 is solely attributable to additional VM work because of the structural and electrical hardening work also performed in 2014. The GCNH stated that tree trimming and contact work due to the 2011 and 2012 storms removed many trees and pruned branches from other trees that, absent this natural vegetation management, might have caused outages during 2013 and 2014. Finally, GCNH asserted that only Connecticut-specific data that compares similar areas with similar species of trees and growing conditions and identical storms, but different levels of tree removal and different approaches to pruning, will provide a definitive answer to the benefits of any particular approach in Connecticut. GCNH Reply Brief, p. 3. The CFE agreed with the GCNH position on CL&P's tree-caused outage data. CFE Reply Brief, p. 4.

The Authority recognizes that other conditions such as tree damage and removals due to the catastrophic storms and improved infrastructure being installed under CL&P's resiliency program have contributed to improved reliability. However, reliability statistics demonstrate that the trees on circuits that have been recently trimmed demonstrate substantially more reliability improvement than those that were not recently trimmed. The PURA is of the opinion that the majority of the reduction in tree caused-outages is due to its heightened VM program following the 2011-2012 catastrophic storms.

ii. New Data Requirements

During the April 1, 2015, hearing numerous questions were raised about the reliability of the data reported by the EDCs in compliance with the Tree Trimming Decision. The GCNH stated that this report should clearly indicate in what ways the reported data may be inaccurate or missing, such as hazardous tree removals and the cost thereof, inconsistent and/or ambiguous. The GCNH urged the Authority to consider refining the reporting requirements so that future data reports are accurate, clear and consistent. GCNH Brief, p.10. The GCNH also claimed that the filed data should show more detail that identifies the time period that that data was collect and what it represents. GCNH Brief, p.11.

CL&P stated that the GCNH's concerns about data reporting do not apply to CL&P. According to CL&P, the GCNH did not identify any instances in which the company reported inaccurate data. Similarly, no other participant made this allegation against CL&P. CL&P Reply Brief, p. 22.

UI stated that it had not updated its report to indicate the actual number of hazardous trees removed. It also did not provide data on the number of non-hazardous trees removed as required by the Tree Trimming Decision. GCNH Brief, p.11; Tr. 4/1/15, p. 149.

UI claimed the tree population is dominated by publicly owned trees located in the sidewalk and growing directly under, around and over the overhead electric system in New Haven. These trees pose a significant threat to the electric system during

extraordinary weather events, and a permit for tree removal was therefore requested from the New Haven Tree Warden. The tree warden denied the removal permits and provided permits for pruning only. These locations were recorded in its mobile application as objections. The City of New Haven was provided information as to the risk to the electric system. UI did not appeal these particular trees to the PURA and will review the trees again on subsequent cycles. Response to Interrogatory EN-49; Tr. 4/1/15, pp. 150 and 151.

UI reported that 378 hazardous trees were removed and 8,329 non-hazardous trees were removed. Response to Interrogatory EN-46. This breakdown could have been explained in the VM Plan in place of the required data under Metric No. 13¹² by stating that all the trees assessed in Metric No. 9 were removed. UI testified that Metric No. 9 reports all the trees that it assessed which included pre-planning, planning and completed stages and does not indicate the actual number of trees that were physically removed. Tr. 4/1/15, pp. 149-151. The Authority concludes that there is an error in the number of tree removals reported in response to Interrogatory EN-46 and that this data has not been provided in this proceeding. UI's filing of Metric Nos. 9 and 13 will be addressed again in the Maintenance Docket.

Additionally, UI's total number of 857 objections and 807 modifications are confusing. VM Plan, pp. 65 and 66. It appears to the Authority that many of the initial objections were reclassified as modifications after final resolution of the objection. Tr. 4/1/15, pp. 146-151. Clarification of this reporting will be addressed in the Maintenance Docket.

Since this is the first time that new tree trimming data was required to be filed in the VM plans, there were some inconsistencies in the data filed and in the time periods for collecting the data. Data should be filed for a full calendar year. In the Maintenance Docket, the Authority will require the EDCs to file the required tree trimming data for the full trim year by January 31 following the trim year as an Appendix to its VM plan. Also, the Authority will determine in the Maintenance Docket what data should be clarified or expanded and whether additional data is useful to evaluate the EDCs VM programs.

C. AUTHORITY ASSESSMENT OF THE VM PRACTICES

Upon review of the EDC VM plans and practices, the Authority determines that they require minor modifications to meet the requirements of Conn. Gen. Stat. §16-234 and the Tree Trimming Decision. Clarification of the newly required tree trimming data is needed and will be addressed by the Authority in its Maintenance Docket. Clarification of the data is necessary in order to ensure consistency in classification of customer responses to notices and tree assessment results.

During this proceeding there were very few public complaints made to the Authority about the EDCs' VM programs.¹³ The public comments received in this docket concerned the future VM work and are not aesthetically related. No evidence was

¹² UI identifies information required to be filed in its VM Plan as a Metric. Tree Trimming Decision, pp. 9 and 10.

¹³ One objection was settled by a PURA mediation during the year. Docket No. 14-01-34, Notice of Appeal Pursuant to Conn. Gen. Stat. 16-234 (c) (4) - 14, 16, 18, 21, 24, 67, 86 and 98 Ingham Hill, Essex, Connecticut.

presented in the proceeding to show that the actual VM work was not needed, that it damaged a tree or was not in compliance with Conn. Gen. Stat. §16-234 or the Tree Trimming Decision.

Because of the lack of formal complaints, the Authority concludes that the large majority of municipalities and EDC customers are satisfied with the VM programs where work has been performed. These programs appear to be meeting the needs of customers on a balanced approach related to reliability of service and environmental benefits of trees. Moreover, the reasonableness of the EDCs' VM programs is demonstrated by the high number of consents received (97% at CL&P and 86% at UI) and a comparatively small number of objections.

III. CONCLUSION

The EDCs' most current VM plans meet the requirements of the Conn. Gen. Stat. §16-234 and the Tree Trimming Decision but tree trimming-related data related to modifications and objections require clarification.

Data on property owner responses to proposed EDC VM work is positive with 97% of CL&P's customers consenting to the proposed VM work, 1% modifying the proposed work and 2% objecting entirely to the work. Additionally, CL&P demonstrated that the total number of events and the total number of customers affected by these events related to trees excluding the three catastrophic storms in 2011 and 2012 has decreased by 49% and 54%, respectively, during the first full year following the trim year compared to the average results of the four years prior to the year of trimming. Similarly, data on property owner response to UI proposed VM work is positive and indicated that 86% of UI customers consent to proposed VM work.

APPENDIX A

SERVICE LIST

Service List for Docket # or Category:
14-07-18

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IN = Intervenor

TS = To Be Served

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14-07-18

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Prepared by: Denise A. Kerr

26 Date: June 2, 2015

DOCKET NO. pura report to the general assembly concerning its review of each electric distribution company's vegetation management practices

This Decision is adopted by the following Commissioners:

Michael A. Caron

John W. Betkoski, III

Arthur H. House

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Jeff R. Gaudiosi, Esq.
Executive Secretary
Public Utilities Regulatory Authority

June 17, 2015

Date