STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

RE: PURA INVESTIGATION INTO THE TREE TRIMMING PRACTICES OF CONNECTICUT'S UTILITY COMPANIES

DOCKET NO. 12-01-10

Technical Meeting

March 05, 2014

COMMENTS OF THE BUREAU OF NATURAL RESOURCES, FORESTRY DIVISION OF THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

The Bureau of Natural Resources, Forestry Division of the Department of Energy and Environmental Protection (DEEP) commends the Public Utilities Regulatory Authority (PURA) for its Draft Decision in Docket No. 12-01-10 and the opportunity to present comments today. The Draft Decision incorporates the recommendations of the State Vegetation Management Task Force and provides an opportunity to implement the provisions of Public Act 13-298 section 60 in a way that appropriately balances the State's interests in maintaining a resilient energy infrastructure, while simultaneously preserving and protecting the environmental, aesthetic and economic value of the State's natural vegetation. The Division of Forestry at DEEP offers the following testimony regarding Connecticut electric utilities enhanced tree trimming proposals under consideration in this proceeding. This testimony highlights relevant findings and recommendations of the Two Storm Panel, the State Vegetation Management Task Force and expands upon observations, conclusions and recommendations articulated within the letter submitted to PURA from Susan Whalen, Deputy Commissioner of Outdoor Recreation and Natural Resources of DEEP dated January 16, 2014.

A. INTRODUCTION

Two extraordinary weather events caused catastrophic electric power grid failure throughout Connecticut during the late summer and fall of 2011. Both events affected over 800,000 electric utility customers with power outages up to 10 - 14 continuous days over three-quarters of the State. In response to the first event, Governor Dannel P. Malloy convened the State Team Organized for the Review of Management (STORM) of Tropical Storm Irene on September 13, 2011. Shortly
thereafter, the Governor expanded the work of the Panel following a late October snow storm that occurred during uncharacteristic late season leaf cover. The Governor renamed it the Two Storm Panel which presented its findings on Jan. 9, 2012.¹

B. **Findings of the Two Storm Panel Report:**

Trees have great value, both aesthetic and economic, and Connecticut residents not only take great pride in their beauty, but benefit significantly from them.

Testimony presented by the Urban Forestry unit of DEEP showed the heating and cooling costs of a home were lowered with the presence of appropriate trees.

Data presented to the Two Storm Panel indicated that Connecticut has one of the most dense tree canopies in the United States (# 1 in the U.S. for our Wildland/Urban Interface tree density).

There does not exist in Connecticut specific industry standards for tree trimming aside from the safety standards in ANSI Z 133.1 and OSHA 1910.269 and the operation standards in the ANSI A 300 series to direct the actions of tree wardens or of those performing utility pruning.

C. **Recommendations of the Two Storm Panel Report:**

Of the 82 specific recommendations within the Report, No.23 called for DEEP to establish a State Vegetation Management Task Force (SVMTF) to develop standards for road side tree care in Connecticut, vegetation management practices and schedules for utility rights of way, right tree/right place standards, licensing standards for tree wardens, municipal tree inventories and pruning schedules.

On April 24, 2012 DEEP Commissioner Daniel C. Esty convened the SVMTF which submitted its Final Report to the Commissioner on August 28, 2012.²

D. **Findings of the SVMTF:**

Tree pruning and removal of roadside trees should emphasize the need for flexibility due to the differences among roadside landscapes in urban, suburban and rural areas, and variation in risk from different tree species. “One size does not fit all”.

The recognized benefits of trees, especially large trees, and the desirability of retaining healthy roadside trees that may not be right tree/right place, until such
time as the existing trees decline and must be removed and replaced with right tree/right place trees.

Benefits provided by trees are maximized when those trees are healthy and well-maintained.

Statutory provisions established in section 60 of Public Act 13-298 define the "Utility protection zone" where "vegetation management" may take place. Section 60 does not require all vegetation be removed from this zone but rather be managed maintaining a resilient energy infrastructure. DEEP finds this provision provides opportunity where further guidance in the interest in protecting healthy vegetation can be made.

E. TREE WARDEN DAMAGE ASSESSMENT SURVEY RESULTS:

To better assess the types of tree damage causing power failures from both Tropical Strom Irene and the October snow storm, DEEP Forestry conducted a 28 question survey targeted to Connecticut municipal tree wardens.

Notification of the survey was sent to 171 tree wardens. The survey was available on-line for approximately three weeks, from January 11 until February 2, 2012. DEEP Forestry received 71 responses (42%) representing a reasonably good distribution of tree wardens throughout the state.

Tropical Storm Irene caused more damage than the October snow storm overall however where October snow storm damage was high, damage was considered greater than Irene.

Power line damage from complete uprooting and major trunk breakage was significant in both storms. Two of every five trees that catastrophically failed impacting utility wires were from private property outside the utility ROW and not part of utility protection zone.

F. DEEP OBSERVATIONS AND CONCLUSIONS:

- Connecticut is one of the most heavily forested states in the nation.
- Connecticut is one of the most densely populated states. Typically ranks either 5th or 6th.
- 60% of Connecticut is covered in forest including urban, suburban and rural areas and as noted in the Two Storm report ranks No. 1 nationally for Wildland/Urban Interface tree density.
• The vast majority of Connecticut’s trees and forests are mature. Absent increased tree care and forest management the rate of declining forest health and therefore increased tree failures must be anticipated.iii
• From 1985 to 2006 UCONN’s CLEAR Forest Fragmentation Analysis reported a loss of 264 square miles of Connecticut’s core forest (continuous forest canopy 300 feet from other land-use). iv
• The loss of this core forest (mostly to development) greatly increases Connecticut’s risk to widespread power outages from extreme weather events.
• A multi-faceted approach must continue in order to increase Connecticut’s electric power grid resiliency. Smartgrid technology, microgrid deployment, and hardened utility infrastructure combined with judicious tree trimming help ensure a balanced approach.
• Public benefits from roadside trees vary along a landscape gradient from urban to suburban to rural.
• Public benefits from roadside trees increase with increased housing and business density.
• Utility tree trimming should complement SMARTGROWTH principles that encourage and support the public’s renewing interest in downtown residency.v
• Communication and coordination with municipal tree wardens is essential for a successful utility tree trimming program.
• There is a direct correlation between urban tree canopy cover and customer utility costs.vi
• Large structurally sound healthy trees near utility wires may be acceptable.
• No amount of pruning will prevent power outages caused by extreme weather events.

G. DEEP RECOMMENDATIONS MOVING FORWARD:

Governor Malloy Two-Storm Panel’s recommendation No.24 advised DEEP to convene appropriate State agencies, municipalities and utilities for the purpose of creating a 5 year collaborative effort for an enhanced tree maintenance program and the development of an educational effort regarding the use of appropriate and diverse tree species in both public and private spaces.

To that end DEEP has three specific recommendations;

1) DEEP shall convene a multi-disciplinary team to develop best management tree trimming maintenance practices that recognizes public benefits along the roadside tree gradient from urban, suburban, to rural landscapes.
2) PURA should create a standing advisory board comprised of roadside tree and forest management experts. This advisory board should develop utility tree trimming reporting and performance criteria so the effectiveness of various tree trimming BMPs can be measured and further refined.

3) Request UCONN Extension and Connecticut Agricultural Experiment Station report findings, conclusions and make further roadside tree and forest management recommendations at the conclusion of their work know as "STORMWISE". vii Preliminary STORMWISE findings indicate roadside tree trimming frequencies may be increased from 5 to 15 year cycles.

Respectfully submitted,

[Signature]

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Director/State Forester
Department of Energy and Environmental Protection

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ii DEEP: SVMTF Final Recommendations
iv CLEAR's Forest Fragmentation Analysis Project
v About Smart Growth | Smart Growth | US EPA
vii STORMWISE is an innovative approach to roadside tree and forest management most applicable in rural settings where 100 feet from the roadside curb is managed specifically for weather resiliency. This ongoing work is made possible through USDA Forest Service Grant with significant contributions from CL&P. Eight demonstration/study sites (one within each Connecticut county) are currently being installed.