Date Filed: October 28, 2026

Witness: John P. Dipaola-Tromba, Sean D. Redding and Jenna M. Turner
Request from: Office of Consumer Counsel

Question:

(Vegetation Management) Contrary to the response to OCC-245, in which the Company attributed declining tree health in part to meteorological and biotic factors—including hurricanes and other tropical storms—the Company's response to OCC-661, identifies specific storms and tropical storms but identifies no hurricanes, and does not relate any of this information to declining tree health that impacted electrical supply. Please relate the information provided in OCC-245, and OCC-661, to the Company's assertion that trees are in declining health and that an increasing number of trees are in declining health. The response should provide evidence of the impact of these meteorological events and storms on tree health, rather than merely documenting that such storms occurred.

Response:

Referring to the Company's response to OCC-245[i], the Company introduced impacts to trees in Connecticut over the past several years, including meteorological and biotic factors. The Company should have been clearer in the length of time presented, including the past several decades, and the specific and compounding impacts resulting from biotic and meteorological factors.

Referring to OCC-661[ii], the Office of Consumer Counsel specifically inquired, "Did a Hurricane impact CL&Ps service territory during the Test Year or the four years prior to the Test Year?" Therefore, the Company responded with the indirect impacts from remnants of tropical systems experienced during the requested timeframe.

Please refer to the Company's response to RSR-028[iii], which details biotic factors and resulting impacts to and the declining health of the Connecticut roadside forest specifically in reference, but not limited to, the Emerald Ash Borer, Spongy Moth, Spotted Lantern Fly, and Beech Leaf Disease, over the last 15 years.

In reference to the "Company's assertion that trees are in declining health and that an increasing number of trees are in declining health," please refer to OCC-972, Attachment 1, where the Connecticut Agricultural Experimental Station ("CAES") summarizes Connecticut forest health in 2025. Specifically on page 2, the CAES *"documented 240,732 acres of new damage in the 2025 aerial survey, nearly three times as much as last year*," and reiterate that (emphasis added), "*like in 2024, we note that the acreage reported through the aerial detection survey is likely to greatly*

underestimate the true extent of damage, particularly for certain agents." On page 2, the CAES expands on the damage causing agents (please refer to Table 1):

Table 1

DAMAGE CAUSING AGENT	ACRES
Beech Leaf Disease	158,717
Spongy Moth	45,414
White Pine Needle Disease	9,955
Winter Moth	9,551
Hemlock Woolly Adelgid	7,643
Emerald Ash Borer	6,353
Argyrotaenia spp.	955
Flooding – High Water	71
Fall Cankerworm	12
Unknown	2,061
TOTAL	240,732

The CAES further expands on the impacts of Spongy Moth, Beech Leaf Disease, Emerald Ash Borer, Elm Zigzag Sawflys, Hemlock Wooly Adelgid, Winter Moth, White Pine Needle Disease, Oak Wilt (not confirmed in CT), Southern Pine Beetle, Sugar Maple early leaf drop, Drought, and Spotted Lantern Fly on Connecticut forest health throughout the 2025 Forest Health Highlights report.

Please refer to OCC-972, Attachment 2, on page 4 (emphasis added): *We observed a substantial increase in tree mortality attributed to insects that accounts for the majority of the overall increase in tree mortality from 2009 to 2024 in northeastern USA forests. An increase in insect-caused tree mortality is consistent with substantial biomass losses from insect invasions previously identified in the region (Fei et al. 2019), including from hemlock woolly adelgid (Adelges tsugae) and emerald ash borer (Agrilus planipennis). However, tree mortality is typically the result of multiple interacting stressors, and other factors may contribute to elevated tree mortality in the region including drought and extreme weather events, effects of forest fragmentation and growth of the wildland–urban interface (Sonti et al. 2023), competition from invasive plants (Golivets et al. 2019), and emerging threats such as beech leaf disease (Reed et al. 2022).*

Furthermore, on page 4 (emphasis added), "*Unfortunately, the areas where we identified high and increasing rates of tree biomass loss from natural mortality, largely in the Mid-Atlantic region and southern New England, also face acute tree regeneration challenges that threaten forest recovery.*" Table A1, on page 6, demonstrates that Connecticut experienced one of the highest rates of aboveground biomass loss from adult trees due to natural mortality (all; 2.297 Mg ha^{-1} yr^{-1}) and insects (1.257 Mg ha^{-1} yr^{-1}) among states in the Northeastern United States during 2018-

2024. On page 4, the authors reported that **22% of mortality was due to insects**, **13% to weather**, and **9% to disease** in terms of biomass loss (across all subplot measurements).

Referring to the impact of meteorological events and storms on tree health, there is substantial supporting evidence from scientific literature. Please refer to Table 2, for a summary of meteorological events, potential tree damage, and the long-term risks associated:

Table 2

Meteorological Event	Potential Tree Damage	Long-Term Risk
Wind events (hurricanes, tropical storms, microbursts, thunderstorms, etc.)	Cracked branches, damaged limbs, stem fractures, root-plate movement, and crown damage	Delayed limb or whole-tree failure
Ice storms	Branch, limb, and crown loading, bent stems, branch splitting, and canopy loss	Continued structural defects and future breakage
Heavy wet snow	Broken leaders, branch fractures, damaged canopy	Weak branch structure and secondary failure
Extreme rainfall, saturate soil, and flooding	Reduced root anchorage, soil movement, uprooting, reduction in root gas exchange	Root damage, increased susceptibility to windthrow
Drought and extreme heat	Reduced growth, hydraulic stress, root mortality, dieback	Declining vitality
Repeated storms	Cumulative and compounding structural injury and canopy loss	Progressive decline and additional failure potential

All referenced meteorological events, potential tree damage, and associated long-term risks introduce stress at the tree- and forest-level that increase wounding, decay, susceptibility to pests and diseases, and ultimately a decline in tree and forest health.

Please refer to OCC-972, Attachment 3, for a global review on the resilience of temperate forests to extreme precipitation and wind events, including drought (4.1.1; pages 10-11), waterlogging (4.1.2; pages 11-12), extreme wind (4.2; pages 12-13), compounding impacts of drought and wind disturbance (4.3.1; page 13), and the compounding impacts of waterlogging and wind disturbance (4.3.2; pages 13-14).

Please refer to OCC-972, Attachment 4, where the University of Kentucky introduces in the Plant Pathology Fact Sheet (PPFS-OR-W-01) that (emphasis added) "*wood decay leads to loss of tree vigor and vitality, resulting in decline, dieback, and structural failure. Wounds play an important part in this process since they are the primary point of entry for wood decay pathogens,*" on page

1, and indicates **insect injury** and **severe weather** are among the factors that cause wounds to trees, on page 2. The fact sheet expands on the responses of the tree to wounding and decay on page 3 (emphasis added): "*Wounded trees do not technically "heal" since they are not capable of repair or replacement of damaged tissues. Instead, trees close over their damaged tissues with wound wood/callus tissue (Figure 6). Trees also wall-off (compartmentalize) injuries by producing chemical and physical barriers to pathogens. Organisms that are able to overcome these protective barriers can then colonize and invade wounded tissues. Among the most aggressive of these organisms are the wood decay fungi.*" The ability of trees to compartmentalize decay is impacted by the tree species, type of pathogen or disease, the tree age, size and shape of the wound, location of the wound, tree vigor, tree vitality, and the season; however, "*The rate of formation of wound wood /callus is often an indicator of relative tree vigor, but it is not necessarily indicative of tree resistance to the internal spread of decay. Extensive internal decay may exist behind a completely closed wound.*" The fact sheet further elaborates on types of wood decay diseases, on page 4, and indications of decay, on page 5. Meteorological events cause wounds in trees and in turn may lead to "*weakened wood that is highly susceptibility to wind or other storm damage*" (referenced on page 5).

Please refer to OCC-972, Attachment 5, where the United States Department of Agriculture ("USDA") Northern Research Station ("NRS") provides an overview of wood decay in living and dead trees, including those wounded by storm damage. On page 8, the NRS indicates that "*storm injury causing broken tops and branches leads to the slow progress of decay in exposed wood*," referencing figure 3a (image of stem decay resulting from a broken top in sugar maple) on page 8. Th NRS presents a descriptive overview of the basic concepts of tree decay and host-pathogen interactions on pages 15-19. The NRS indicates on page 18 that "*crown loss due to ice storm injury or insect defoliation may reduce tree vitality, increasing the chances of root infection*," referencing figure 7g (mycelium of an *Armillaria* root-rot fungus spreading into the stem of birch after crown loss due to an ice storm) on page 19.

Prior Referenced Responses:

[i] OCC-245 Question:

(VMP) Referring to Exhibit CLP-VMP-1, page 8. Provide support for the claim Company has experienced declining tree health in Connecticut over the past several years.

OCC-245 Response:

Please refer to exhibit CLP-VMP-1, page 47, at lines 10-20. The trees in Connecticut have been impacted by many meteorological and biotic factors over the last several years. These issues include repeated droughts, polar vortexes, bombogenesis, Nor'easters, microbursts, tornados, tropical storms, hurricanes, the Emerald Ash Borer ("EAB"), Spongy Moth, spotted lantern fly, and beech leaf disease. EAB infestation is of particular concern given the manner in which it affects ash trees, the fact that there is no "cure" after the infestation, and the 100 percent mortality and

failure rate of infested ash trees. Trees may be treated with pesticide before infestation, but it must be done annually, and the amount of pesticide is dependent on the size of the tree. Few tree owners have made the decision to proactively treat trees. The residual effect of these influential factors are more trees that are standing dead or in declining health along the roadside forest and within reach of the Company's lines.

[ii] OCC-661 Question:

Referring to OCC-245, Interrogatory Response. Did a Hurricane impact CL&Ps service territory during the Test Year or the four years prior to the Test Year?

OCC-661 Response:

The Company's CL&P service territory did not experience any hurricanes during the Test Year or within four years of the Test Year.

However, CT did experience indirect impacts from remnants of tropical systems during the Test Year and the four years prior.

2021
Tropical Storm Elsa (MS21G011/MS21H011/MN21F011)
- **July 9, 2021**
- Brought heavy rain, flooding, washed-out roads, power outages, and localized wind damage across Connecticut.

Hurricane Henri (MS21K011)
- **August 22-23, 2021**
- Made landfall in Rhode Island as a tropical storm and directly impacted Connecticut with heavy rain, flooding, coastal flooding, power outages, and wind damage. FEMA issued an emergency declaration for Connecticut.

Remnants of Hurricane Ida (MN21K011)
- **September 1-2, 2021**
- Produced historic flash flooding across Connecticut. The state's first Flash Flood Emergency was issued for portions of Fairfield and New Haven Counties.

2022
Remnants of Hurricane Nicole (MS22H011)
- **November 11-12, 2022**
- Produced widespread rain, gusty winds (locally over 40-50 mph), and scattered power outage concerns across Connecticut.

2023
Hurricane Lee (MS23G011)
- **September 15-17, 2023**
- Stayed offshore, but Connecticut experienced rough surf, coastal impacts, and gusty winds due to Lee's large circulation.

2024
Remnants of Tropical Storm/Hurricane Debby (MS24J0011)
- **August 9-10, 2024**

- One of the more significant tropical-related events of the year for Connecticut. Produced heavy rain, flooding concerns, strong winds, and even tornado watch conditions in parts of the state.

[iii] RSR-028 Question:

(VEGETATION MANAGEMENT) Exhibit CLP-VMP-1, p. 48. Provide additional information on occurrences, frequency, and other information on infestations and diseases affecting vegetation since at least 2018.

RSR-028 Response:

Referring to Exhibit CMP-VMP-1, on page 48, the Company explains that it has worked with the Connecticut Agriculture Experimental Station ("CAES") to receive updated information on the locations and spread of disease and insect infestations, specifically in reference, but not limited to, the Emerald Ash Borer, Spongy Moth, Spotted Lantern Fly, and Beech Leaf Disease. The long-term residual effect of the above factors are more trees that are standing dead or in declining health along the roadside forest and within reach of the Company's electric distribution system.
Please refer to the CAES website repository for all press releases regarding reported disease and insect infestations in Connecticut from 1997 through 2026.

CAES Press Releases

Please see a list of press releases concerning Emerald Ash Borer, Spongy Moth, Spotted Lantern Fly, and Beech Leaf Disease below. Included parenthetically are the description, distribution map, and activity associated with each pest and disease.
Emerald Ash Borer (Agrilus planipennis)

July 20, 2012-- Emerald Ash Borer Found in Prospect and Naugatuck, Connecticut February 26, 2013-- Emerald Ash Borer Found in Three Additional New Haven County... May 20, 2013--Emerald Ash Borer Found in Hamden, Connecticut
May 29, 2013-- Parasitoid Wasp Released in Connecticut for Biocontrol of the Emerald Ash Borer July 28, 2013-- Emerald Ash Borer Found in Fairfield County: Sherman
August 9, 2013-- Emerald Ash Borer Found in Two New Counties in Connecticut, Hartford... July 16, 2014-- Emerald Ash Borer Distribution Expanding in Connecticut
November 12, 2014-- Connecticut Agricultural Experiment Station to Hold Public Hearing...

Spongy Moth (Lymantria dispar)
June 23, 2015--Gypsy Moth 2015 Outbreak
June 13, 2016--Gypsy Moth 2016 Outbreak May be Over Natural Fungus Causing Widespread... March 23, 2017--CAES and DEEP Anticipate Another Spring of Heavy Gypsy Moth Defoliation... Tuesday, June 29, 2021--Gypsy Moth 2021 Outbreak in Northwest Connecticut Causes...
Monday, May 16, 2022--CAES and DEEP Anticipate Heavy Spongy Moth Defoliation...

Spotted Lantern Fly (Lycorma delicatula)

Monday, October 22, 2018--CAES Announces the Finding of Spotted Lanternfly in Farmington... Tuesday, October 15, 2019--Spotted Lanternfly CT
Monday, September 21, 2020--CAES Announces the Finding of Spotted Lanternfly in West... Thursday, October 15, 2020--CAES Announces the Finding of a Spotted Lanternfly Population... Monday, July 19, 2021--CAES Announces the Finding of a Spotted Lanternfly in Norwalk...

Thursday, July 29, 2021--CAES Announces The Finding of Spotted Lanternfly in Fairfield... Monday, January 3, 2022--CAES Announces Renewal of the Spotted Lanternfly Quarantine... Monday, January 9, 2023--CAES Announces Renewal of the Spotted Lanternfly Quarantine... Wednesday, January 3, 2024--CAES Announces Renewal of the Spotted Lanternfly Quarantine... Tuesday, December 18, 2024--CAES Announces Renewal of the Spotted Lanternfly Quarantine... Monday, December 9, 2024--CAES Scientists Develop a New Method to Identify Odorants... Wednesday, January 9, 2026--CAES Announces Renewal of the Spotted Lanternfly Quarantine...

Beech Leaf Disease (Beech Leaf Disease)

Thursday, October 17, 2019--Beech Leaf Disease
Wednesday, June 3, 2020--CAES Announces First Report of Beech Leaf Disease in Hamden... Thursday, June 10, 2021--Beech Leaf Disease Now Widespread in Connecticut
Monday, June 6, 2022--Connecticut's Beech Trees Severely Impacted by Beech Leaf Disease...
Friday, September 1, 2023--CAES Scientists Release Updated Bulletin on Management...