The Garden Club of New Haven

Promoting the preservation of natural resources is one of the primary missions of The Garden Club of New Haven (GCNH) and of the organizations with which is affiliated, the Federated Garden Club of Connecticut and the Garden Club of America. Since 2011, GCNH has actively participated in educating the public about issues involving trees and power and advocating for a balanced approach to preserving the benefits of trees and protecting public safety, including power reliability.

March 3, 2022

Melissa Paslick Gillett, Chairman
John W. Betkoski III, Vice-Chairman
Michael Caron, Commissioner
Public Utilities Regulatory Authority
Ten Franklin Square
New Britain, CT 06051

Filed electronically

Re: Docket No. 17-12-03RE08
Comments on Responses to Notice of Request for Written Comments due February 18, 2022

Dear Chairman Gillett, Vice-Chairman Betkowski and Commissioner Caron:

The following comments supplement the Garden Club of New Haven's Memorandum in Support of a Statewide Strategy for Undergrounding of Electric and Communication Wires and Cables, dated January 26, 2022. It was filed in this docket under Correspondence. That memorandum addresses many of issues in your Notice of Request for Written Comments due February 18, 2022.

Having reviewed the comments from Participants in response to your Request, we are concerned that insufficient focus has been placed on achieving resiliency in the face of the frequent extreme weather that climate change is predicted to cause in the future. This will result in frequent outages of long duration throughout the state. The risk of long term power outages will become ever greater if Connecticut continues to rely on a predominantly overhead pole and wire distribution system. Higher investments in that pole and wire system and in vegetation management are not cost effective in the long term, and will not provide, as the Connecticut Industrial Energy Consumers System (CIEC) rightly insists that the investments should, "meaningful benefits" for resiliency. Whatever problems old underground installations may now

have,[1] new undergrounding techniques and materials make underground cables not only cheaper to install, but easier to maintain and expected to outlast overhead lines, with some suggesting that they can last for 100 years.[2] In other words, underground systems are far more resilient, and greater resilience necessarily increases day to day reliability.

UCONN's comments describe all the variables in tree characteristics, soil conditions, and storm conditions that make predicting how to prevent damage to the overhead pole and wire distribution system from trees difficult or impossible. No one can predict with any degree of certainty what trees will cause damage, especially in strong hurricanes and tornadoes, and even trees that can be considered hazardous do not always fall. Even in the absence of trees, extreme weather can lead to failure to the overhead system from heavy ice and flying debris from homes and businesses (*e.g.,* roofs, equipment and household belongings). Repair and restoration of the overhead system will be more frequent and cumulatively more costly as extreme weather increases. The solution to the conflict between trees and the overhead pole and wire electric distribution system is not to "blame the trees," but to invest in an underground electric distribution system that is not affected by falling trees or branches.

The standard reliability metrics do not adequately represent long term outages from extreme weather, and are more focused on day to day reliability in normal weather. CELID, which measures the percentage of customers who have experienced an interruption of a given number of hours or more in a given period, would be a more useful metric in evaluating the impact of extreme weather. (*See* DEEP related comments.) That term is used in Eversource's Massachusetts Service Quality Plan (Attachment 1 to its response), but the plan precludes its use with most extreme weather due to "Excludable Major Events," which include declared states of emergency and interruptions of service to 15% or more of total customers. It is exactly those events that cause the greatest harm, not only to the overhead pole and wire distribution system, but in indirect costs, many of which are listed on p. 19 of the Quanta Technologies presentation dated September 2, 2021. They should be reported. Of course, the question remains what is an acceptable length of interruption. The longer the outage, the more severe the indirect costs to health and safety and to the economy. Hypothetically, Eversource suggests a target of 96 hours to full restoration (p. 45 Eversource comments), but 4 days of outage may not seem at all acceptable to its customers, as the reactions to power outages due to Isaias suggest.

A cost benefit analysis of undergrounding requires a focus on the full socio-economic costs of long term power outages that could be avoided by more resilient infrastructure, as well as the costs of maintaining and replacing the overhead distribution system instead. (This also includes having to hire outside help to restore the overhead system, and to have crews on standby

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[1]With regard to the responses by UI and Eversource to Interrogatory RWR-094, it is difficult to determine whether the outages on underground lines are due to their dependence on power coming from overhead lines, and therefore meaningless as to their reliability, Extreme weather is not distinguished from less severe storms, and duration is averaged, eliminating identification of long term outages for customers, such as the week or more outages in the past decade. Moreover, the current underground lines appear to be in need of repair or replacement and not nearly as reliable as those that would be installed today. Even if it does take longer to repair underground lines, they are far less likely to need repair

[2] *See,* 21st-Century Costs of Underground Distribution | T&D World.html

even though a predicted storm may not occur.) Some of the socio-economic costs of interruptions may not be easily quantified, but nevertheless need to be considered. We urge PURA to consult with other regulators and electric distribution companies outside of New England who are working to achieve greater electric distribution resilience and reliability by encouraging undergrounding for electric distribution, such as those mentioned in page 3, endnote 4 of our Memorandum, as well as independent experts in undergrounding, noted at the bottom of page 3.

Protection of the street/roadside tree canopy is also important to climate change adaptation and resilience, as our Memorandum indicates. Undergrounding would permit development of a more robust tree canopy. However, so long as vegetation management is needed for the overhead pole and wire distribution system, it also must be conducted in a way that promotes the health and structural integrity of the tree canopy, and ensures its resilience in the face of extreme weather. We therefore support the establishment of a Vegetation Management Working Group, and agree with others that it should focus on broader issues, and not on dispute resolution. In particular, it should focus on how best to protect the existing tree canopy from unnecessary harm due to tree pruning and removal and on recommending pruning techniques that strengthen and improve the health of trees. It should include at least one trained expert in pruning to strengthen and make trees more resilient in the face of extreme weather.

We recognize, as CIEC does, that the cost of electricity is already very high in Connecticut compared to other states. Viewed from a long term perspective, slightly higher costs to consumers for incremental investments in undergrounding of the electric distribution system can be justified in order to achieve lower operating and maintenance costs, cost stabilization, and a far more reliable system. However, the upfront costs to customers from undergrounding may be minimized by utilizing Federal, state and perhaps even municipal funds. For example, such public private financing in the District of Columbia undergrounding project (see Memorandum at p.4) resulted in no added cost to low income customers and a surcharge of $1.15 for 675 kwh ($.0017 per kwh) for residential customers. By contrast, in a 2017 rate case, Eversource was awarded a $.00582* per kwh Electric System Improvements charge for "system resiliency and/or grid modernization." That far higher surcharge should be invested in long lasting improvements that actually lead to a resilient electric grid, not to improvements to an overhead system that, even with improvements, cannot withstand increasingly frequent extreme weather.

Respectfully submitted,

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*Corrected from original filing; correction was communicated to PURA and DEEP on March 15, 2022.