



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 25, 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. 21-05-15

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

At the March 16, 2022 public listening session in Docket No. 21-05-15, Chairman Gillett asked for suggestions regarding a metric for Performance-Based Regulation (PBR) other than the standard reliability metrics (*e.g.*, SAIDI, SAIFI) for resilience, and specifically how it could be used in the context of undergrounding of electric distribution wires/cables.

My research indicates that the electric industry has not yet formally adopted a metric for resilience, but that Dominion Energy, a leader in strategic undergrounding, has developed a metric it refers to as TLR (Total Length of Restoration). Some in the industry refer to it as TTR (Total Time of Recovery). It is measured by the time it takes to restore power from the last out to last restoration. Dominion developed it as a way to determine which circuits were the worst performing due to failures of the overhead distribution system and thus, where undergrounding of distribution wires should first occur.

TLR would be a suitable metric for determining resiliency in what are termed "high impact/low probability events," a term that might more accurately be changed to "high impact/low predictability events," since high impact events such as tropical storms, hurricanes and tornadoes due to climate change are now more probable, but their timing and the location of damage is difficult to predict.

To use that metric in PBR would require a policy judgment as to what the maximum TLR

should be. What it *can* be is highly dependent on the resilience of the distribution infrastructure. As we have argued in Docket No. 17-12-03RE08, a strategy for undergrounding of electric distribution wires is essential to resilience due to climate change. To encourage development of a more resilient electric distribution infrastructure using PBR, the maximum restoration time would have to be reduced over time. What the TLR *should* be from the standpoint of regulatory policy will depend on a cost benefit analysis that includes:

- (1) socio-economic, safety and health costs and inconvenience;¹
- (2) loss of the benefits of a robust tree canopy to climate change adaptation and resilience due to the overhead distribution system; and
- (3) long term operating and maintenance, and replacement (life-cycle) costs of an overhead vs. an underground distribution system. We have addressed these in our submissions to Docket No. 17-12-03RE08.

Respectfully submitted,
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¹See, for example, Quanta Technology slide 18 for schematic of rising economic and social impacts with longer outages and slide 19 for list of direct and indirect impacts, filed September 1, 2021 in Docket No. 17-12-03RE08).