Dear CT Legislators,

I am writing you to ask that you address the serious and persistent issue of our antiquated, failing electrical infrastructure in Connecticut. Recent tropical storm Isaias caused power outages across Connecticut leaving more than 1 million households without power and without communications (cable, phone) for a week and more. Unfortunately, outages are not unique to this storm, but rather have become commonplace with every passing storm, due to our vulnerable, outdated infrastructure.

During 1983-87, I lived in Europe and ALL of the local transmission and distribution lines were buried - never a power outage. Then from 1992-2008 living in Manhattan, through many strong storms, I continued to have reliable service because the lines are buried. However, since moving to Greenwich in 2008, I have been dismayed by the unreliability of electrical distribution, constant outages, as well as the visual clutter of what looks like Third World infrastructure. In the last two years, our family has lost power at least 12 times — one outage lasted 9 days, and twice we had outages caused by a squirrel that shorted the line. It is unacceptable that our infrastructure is so fragile that a squirrel can derail it. But it is equally unacceptable that winds, ice, falling trees can also derail our services. Severe weather is a fact of life in New England, our infrastructure must be tailored to the realities of the conditions. During all of the outages over the years, we have never once lost our natural gas or water service. Why? Because their pipes are underground and protected.

Our standards and expectations of Eversource must be elevated. We cannot continue to accept multiple power outages that disrupt residents' work, businesses, schools, and lives, and in many cases endanger, their lives. Trees and storms are not the problem. Overhead lines and poor planning are. **Overhead lines are the "horse-and-buggy" of electrical distribution. Buried lines are the current standard for new construction, so we must update our existing infrastructure to the current standard.**

Some points and information to consider:

- There is broad consensus on the **BENEFITS** of burying the lines:
    - **Reduced Maintenance**
        - Weather-related outages are eliminated.
        - Significant cost savings to ratepayers once the initial undergrounding cost has been paid.
    - **21st Century reliability**
        - Your constituents rely on electrical, cable and phone utilities to run their businesses, further their education, and show up for remote jobs and internships. Lack of these services can jeopardize job security, cause lapses in education and disables emergency communications.
        - Hospitals, police and fire stations, and EMS need power and communications to save lives.
        - School cancellations due to outages also would be avoided with buried lines.
    - **Aesthetics**
        - Overhead lines only detract from the beauty and historic charm of our communities. Eliminating the visual clutter of overhead lines creates a more beautiful, park-like feel with benefits to mental health.
        - Trees would not have to be pruned so aggressively and could grow in a more balanced, natural shape, making them more structurally sound and resilient.

- Improvement projects such as adding or widening sidewalks are made possible without utility pole obstructions.

- **Safety**
  - Burying lines eliminates the risk of fire hazards, electrocution from falling lines.
  - Utility line work is one of the most dangerous jobs in America with about 40 of every 100k workers killed on the job every year. Many more are injured. The fatality rate is more than twice the fatality rate of police officers and firemen. Less necessary maintenance brings less exposure to workers to "hot" wires and less need for workers to do their work at precarious heights, reducing overall risk.
  - Reduce automobile accidents as motorists will no longer strike utility poles, often with fatal consequences.
  - Police, Fire, EMS, Hospitals and nursing homes rely on electricity to power critical communications as well as life-saving equipment.
  - Vulnerable residents reliant on CPAP machines, refrigerated medicines, and monitoring equipment will not have to worry about the next outage.
- **Environmental**
  - Save the trees/forests: carbon-sequestering pine trees are used as utility poles (In the US, there are 120-180M wood utility poles with about 6M more harvested per year). One study found that stopping deforestation is AS important as reducing carbon emissions to combating climate change.
  - Eliminate contamination of soil/water: Utility poles are treated with toxic chemicals, like creosote and arsenic, which off-gas and run off, contaminating our soil and water table.
  - Health risks of exposure to electromagnetic radiation fields (EMF's) are reduced and possibly eliminated.
- **Economic Development**
  - Funding infrastructure upgrades employs local workers, who return their earnings into local and state economy.
  - Increase property values: Studies show that real estate values can increase up to 15% when utilities are undergrounded. Higher real estate sales and valuations create a vibrant economy and more tax revenue.
  - Local businesses may benefit as customers are drawn to the improved appearance in local business areas. Stronger businesses equals more happier, stable business owners, more employees, as well as increased state tax revenue.
  - Reduce interruptions economic activity (impacts on businesses, tax revenue) due to power outages are eliminated. Some storm-related outages have had estimates in the billions of dollars in lost economic output.
  - Historic sites, scenic vistas, parks and historic towns in our state will be beautified and revitalized which will bring more tourism.
- **Equity**
  - Many wealthy neighborhoods have pooled resources to underground their lines. In Greenwich, a few examples are Belle Haven, Mead Point and Conyers Farms. These neighborhoods should not be the only ones to receive reliable service. The fact that these neighborhoods can continue to work remotely and learn online, while others cannot, widens the disparity of resources and education.

        - Generators for an average home, installed, cost $10k and up. This is unaffordable for most households in CT. Median household income in CT as of 2017 was $73,781 pre-tax.
        - Communications from our Town's Emergency Management cannot get through to our vulnerable populations for emergency instructions and information like where warming or cooling centers are when power and phones are out.

- Many cities and towns are burying their lines: San Antonio, TX; Colorado Springs, CO; New Castle, DE; Saratoga Springs, NY; Williamsburg, VA; Tacoma, WA; Palm Beach, FL; and Frederick, MD. Many more have already done it.

- Some **EXCUSES** cited for not burying the lines do not hold up to scrutiny:
    - ***"There is too much ledge/rock"*:** Eversource has the technology and equipment to do "pipe jacking" as they have done it when needed in Greenwich. Pipe jacking is a trench-less method of installing underground pipes horizontally using hydraulic power and a navigation system. In addition, there are so many other "trench-less technologies" that go through rock. Think of fracking equipment and their ability to drill down 2 miles and then horizontally for miles beyond that. The technology is readily available. In the past, the trenching was cited as the most expensive part of an undergrounding project, so using trench-less technologies saves money.
    - ***"There are too many coastal areas that flood and can't have underground wires"*:** Low-lying areas can be undergrounded. Underground lines are protected in waterproof pipes or casings. Think also of the transmission lines that run under water from Cape Cod to Nantucket - water and electrical can safely co-exist. Also, waterfront communities in Greenwich like Mead Point and Belle Haven have not had problems with water on their underground lines. There are safety "trips" that will shut down power if it comes in contact with water.
    - ***"It's too hard to pinpoint an issue with underground lines and easy with overhead lines"*:** Actually, there are low-cost sensors that are now routinely placed along underground lines so that issues can be detected quickly. And of course, there will be many fewer maintenance/repair issues in the first place with underground lines.
    - ***"It's too expensive"*:** If this is a 30 year project (as Eversource has said), then let's start now. Interest rates are low. Overhead lines only detract from the beauty and historic charm of our communities. Maintenance costs of overhead lines are saved as more lines are buried. Buried lines also result in increases to property values, so that could play into future property assessments, bringing in more revenue for towns. In addition, the federal government also currently offers low cost loans for electrical infrastructure projects. Let's lock it in!

Please let me know if I can help in any way on moving this forward. I'd be happy to provide the information resources for the above points if needed. Thank you for considering undergrounding our State's wires, as it is a unique opportunity to promote a project which will benefit ALL citizens of Connecticut.

Sincerely,
Elizabeth Hopley
Greenwich, CT