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August 28, 2024

The Honorable Rory Christian, Chair
New York State Public Service Commission
3 Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

RE: Case 22-E-0222, Proceeding on Motion of the Commission Concerning Electric Utility Climate Vulnerability Studies and Plans

Dear Chair Christian:

As Ulster County Executive and the County's chief decision-maker in coordinating and allocating resources to respond to climate-related disasters and severe weather events, I write to offer comments on Fortis-Central Hudson's Climate Change Resilience Plan. The Plan falls short in several areas, including a failure to address the need for coordinated planning and response with County and local governments and emergency services and a failure to identify critical infrastructure for priority consideration in planning and investment. The plan, moreover, contains few innovative solutions to bolster the resilience of our communities to the impacts of climate change, and I strongly suggest that consideration be given to residential energy storage programs to better protect vulnerable residents from power outages while providing other grid and climate benefits.

Ulster County is a large, rural county that includes the Catskills and Shawangunk Ridge regions and the Hudson River on its eastern border. The topography of the County increases our susceptibility to impacts of climate change, especially flooding. Extensive forest cover in the County makes our communities particularly vulnerable to power outages, with downed trees and falling limbs accounting for the vast majority of storm-related outages. With the impacts of climate change expected to worsen in the future, robust planning and strategic investment by the utility is essential to ensuring the reliability and resilience of the grid and the safety and well-being of our residents. I urge you to ensure that Fortis-Central Hudson's Climate Resiliency Plan be revised to address the comments and recommendations below.

Integrate residential energy storage in climate resilience and reliability planning

Fortis-Central Hudson's Climate Resilience Plan for the next five years focuses mainly on tree-trimming and improvements to distribution assets, such as lateral line rebuilds and the installation of composite polls, to reduce the incidence of power outages associated with wind, ice, and major storm events. More costly investments, such as microgrids and strategic undergrounding of lines, would provide greater resilience but plans for these investments are limited in scope and most of projects are not slated to be implemented for 10-20 years (see page. 28, table 6). In neighboring Vermont, Green Mountain Power (GMP) is taking a much more aggressive and proactive approach in its proposed "Zero Outages Initiative" to eliminate outages by 2030. GMP is comparable in size to Fortis-Central Hudson in terms of customers served, and serves a rural, forested service territory with climate change-related challenges very similar to our County and region. In addition to plans for storm-hardening and microgrids, the Vermont utility has launched a residential energy storage program that provides on-site back up power to its customers during outages. Beyond the obvious benefit to customers of an emergency power supply for their home, the batteries are also utilized by the utility for load-balancing, reducing reliance on fossil fuel-fired peaker plants and generating operational savings for ratepayers. A 2023 study by the Brattle Group estimates the cost of utilizing distributed energy resources like battery storage as a "virtual power plant" to meet resource adequacy needs is 40%-60% less costly than conventional alternatives.[1] And the resiliency benefits for our residents is tremendous.

GMP's pilot residential storage program, now in its seventh year, has been popular with customers, enabling them to ride out outages in major storm events.[2] Under the current program, customers can lease the energy storage system from the utility or take advantage of a utility incentive to purchase their own system. GMP's Zero Outage Initiative, which is under review by the Vermont Public Utility Commission, would provide these energy storage systems *free of charge* to certain customers in areas where it is more challenging and costly to storm-harden infrastructure and underground the lines.

Fortis-Central Hudson should pursue a similar strategy in its climate resilience planning. A residential battery storage program would protect residents from power outages while providing load-balancing benefits that support grid reliability and reduce operational costs. The Company's plan for undergrounding lines is likely to be very limited because of cost, and only two microgrids are planned for Ulster County (both in the Town of Wawarsing), leaving most residents still vulnerable to outages. Residential storage systems should be offered free of charge to customers who:

- Live in more sparely populated areas where the cost of undergrounding is not feasible;

[1] . Ryan Hledik and Kate Peters, "Virtual Power Plants (VPPs) Could Save US Utilities $15-35 Million in Capacity Investments over the Next 10 Years," The Brattle Group, May 2023

[2] (Petition for Approval of Green Mountain Power's Zero Outages Initiative as a Strategic Opportunity Under Its Multi-Year Regulation Plan, Case 23-3501-PET, Vermont Public Utility Commission, October 9, 2023: p. 5-6).

- Depend on electricity for medical devices and refrigeration of insulin;
- Are more vulnerable based on Disadvantaged Community and Social Vulnerability Index criteria and are on circuits where outages in storm events are more common. (See comments below.)

Additionally, the Climate Resilience Plan should be revised to include a working map indicating where the utility plans to underground lines to provide a clear and transparent picture of the Company's resilience planning.

The Plan lacks a critical component of climate resiliency and adaptation planning: Emergency management

The Commission's Order initiating this proceeding specifically directed utilities to identify opportunities for coordination with municipalities, as well as to consider including local, municipal, and county storm protection initiatives in plans for storm hardening investments (p. 8). Fortis-Central Hudson's plan does neither. Ulster County and other counties are required to maintain a Comprehensive Emergency Management Plan (CEMP) for risk reduction, emergency response and recovery from emergency situations, and Ulster County has developed a Climate Adaption Annex to meet the emergency health and safety related to the impacts of climate change. Ulster County Emergency Services is also in the process of developing a wildfire management plan. Close coordination with the utility is required in planning and operations, and the utility's Climate Resilience Plan should contain a section specifically focused on emergency management and how the plan integrates with county plans. The utility plan should, for instance, address:

- Resource Allocation: Information on how resources might be allocated or prioritized during large-scale climate events to support emergency services, including the set up of PoDs for dry ice, water, sheltering, etc.
- Evacuation Considerations: The plan could address how resilience measures might support potential evacuation needs during extreme weather events.
- Training and Exercises: Plans for joint training or exercises with emergency services to test new resilience measures.

Fortis-Central Hudson's plan also does not appear to consider critical infrastructure (e.g., hospitals, emergency operations centers, fire stations) in prioritization of storm-hardening investments. Ulster County is in the process of constructing a new Emergency Operations Center on Paradees Lane in New Paltz, which is the kind of facility the utility should consider for a microgrid. Lastly, the utility's plan does not address how Fortis-Central Hudson's climate resilience efforts will support or improve emergency communications systems, which is absolutely critical to effectively responding to climate-related emergencies.

Better analysis and planning to support vulnerable populations

Under New York's Climate Leadership and Community Protection Act, Disadvantaged Communities (DACs) are to be prioritized for climate-related investments. Fortis-Central Hudson's plan states that its multi-criteria decision analysis considered the extent to which a

project benefits customers in NYS-mapped Disadvantaged Communities but does not give any indication of how the plan specifically supports these communities. The plan also does not indicate how the needs of vulnerable populations more generally, including those dependent on electricity for medical devices, will be supported.

In addition, although the DAC designation is an important tool, it does not adequately capture vulnerability in rural communities like Ulster's. The plan should include the review and prioritization of actions based on the CDC/ATSDR Social Vulnerability Index (SVI).[3] The SVI incorporates at the census tract level, the demographic and socioeconomic factors (such as poverty, lack of access to transportation, age) that adversely affect a community's ability to mitigate such stressors as natural or human-caused disasters. The SVI index better captures vulnerability in our community and should be part of the Community Resilience index.

Support Community Development of Resilience Hubs

Resilience Hubs are community-based centers that support residents as well as coordinate resource distribution and services during and after emergency events. In vulnerable communities, resilience hubs can play an important role in protecting health and safety, for instance, by serving as a cooling center during periods of extreme heat and as a distribution point for supplies during weather-related emergencies; and by enabling devices to be charged and medicines to be stored during power outages. Resilience Hubs are typically designed to include renewable energy production, battery back-up as well as tertiary generation capacity. Central Hudson should be working with local governments, especially in DACs and high SVI communities, to establish Resilience Hubs. Beyond times of emergency, these hubs can provide programs and service that increase the adaptive capacity of the residents, helping to reduce the community vulnerability to the negative impacts of emergency events.

The need for better analysis and planning to address flood vulnerabilities

Ulster County is particularly vulnerable to flooding, including coastal flooding associated with the Hudson River and stream and river flooding associated with our mountainous terrain. The Climate Resilience Plan includes projects to raise switchgear at substations located in the 100-year flood plain. The current mapped 100-year flood plain is based on historical data and is not the design standard for this type of critical infrastructure. Central Hudson should be following the American Society of Civil Engineers guidance for critical infrastructure as it relates to flood design classes.[4] Substations are considered flood design Class 4 facilities and should be at a minimum Base Flood Elevation (BFE) of +2 or Design Flood Elevation (DFE) or 500-year floodplain elevation, whichever is higher. Central Hudson utility polls should be retrofitted to at least BFE +2. Central Hudson should revise the plan and any specific construction projects for flood protection to reflect these standards.

[3] https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

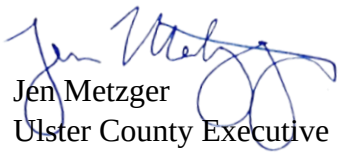
[4] Guidance available at https://www.fema.gov/node/american-society-civil-engineers-flood-resistant-design-and-construction.

Conclusion

Electricity service is a fundamental need in the modern age: We are dependent on it for our health and safety, work, school, communications, and daily life. Our communities have already experienced major and prolonged outages associated with severe storms, including Tropical Storm Isais in 2020 and Winter Storm Landon in 2022, and the impacts of climate change will continue to be felt by our communities for the foreseeable future. We applaud the requirement that New York's utilities develop climate resilience plans but are concerned that Fortis-Central Hudson's plan falls short in important respects. We urge the Commission not to accept this plan in its current form. The plan should be revised to include more robust and effective solutions to bolstering community resilience, such as residential storage programs and more robust protection from flooding, based on appropriate design standards. The plan must also be more transparent with regard to the extent and location of projects to underground lines. Finally, and importantly, the plan must include a section on emergency management coordination, protection of critical emergency infrastructure, and specifics about how the plan will bolster the resilience of our most vulnerable residents.

Thank you, in advance, for giving these recommendations your consideration.

Sincerely,



Jen Metzger
Ulster County Executive