Pragmatic Environmentalist of New York Summary Update July 20 – August 2, 2026

This is a summary update of posts at Pragmatic Environmentalist of New York for the last two weeks. The intent of this report is to summarize my articles and include links if you want to get into the details. I have been writing about the pragmatic balance of the risks and benefits of environmental initiatives in New York since 2017 with a recent emphasis on New York's Climate Leadership & Community Protection Act (Climate Act). If you do not want to be on this mailing list, then let me know. A pdf copy of the following information and previous summaries are also available. The opinions expressed in these articles do not reflect the position of any of my previous employers or any other organization I have been associated with, these comments are mine alone.

I used Perplexity AI to generate draft summaries of the descriptions in this document. I asked Perplexity to provide a summary of the following posts and edited the output for consistency and accuracy.

The 2026 June-July Heat Wave

I have always thought that when there was a massive blackout that could be linked to the Climate Axt blackout that people would become upset enough to demand a reassessment of New York's current energy policies. While that has not happened yet the late-June/early-July 2026 heat wave did cause problems that I think should be a concern. I published two articles previously that relied on New York Independent System Operator (NYISO) system-wide data: to analyze the transmission system (My take and NYISO take). Over the last two weeks I have published two more articles.

Ellenbogen's Data From the July 2026 Heat Wave

Rich Ellenbogen provided detailed evidence of what the July heat wave looked like at the local level. He lives and owns a factory in Westchester County. Both locations receive electricity from Con Edison. For more than 20 years, he has used equipment that automatically records electricity conditions, solar-panel output, and backup-generator operation about twice a minute. His records provide a useful on-the-ground example of the electric-system stress that NYISO described during the heat wave.

His data show that electricity service at the factory was abnormal for several days. From early July 2 until early July 4, the voltage was lower than normal, and conditions did not appear fully stable until around July 5. At times, voltage dropped to about 104–108 volts instead of the normal level near 120 volts. At his home on July 3, voltage steadily fell during the day, dropped sharply late in the afternoon, and then rebounded as high as about 130 volts. There was also a brief interruption of service.

These swings caused the electronic controls connected to the solar panels at both locations to shut down automatically. At the home, the solar-system log recorded 54 problems in only 54 hours—15 percent of all problems recorded since the system was installed in January 2024. The factory's backup generator also ran during the worst conditions, suggesting that normal utility service had become unreliable.

Ellenbogen believes this event highlights an important limitation of relying heavily on batteries and solar power. Batteries designed to last four or even eight hours cannot cover several days of poor grid conditions. In addition, solar panels and batteries use electronic controls that may shut off automatically when power quality becomes too unstable. That means these resources can become unavailable precisely when the electric system needs them most.

These abnormal electric conditions are already causing damage. Ellenbogen had equipment damage at both his home and factory. He also noted that the Yonkers sewage-treatment failure during the same period was caused by the atypical electric quality. Ellenbogen and I believe that the underlying cause was insufficient generating resources and that is directly related to New York energy policy.

How Neighboring Electric Systems Handled the July 2026 Heat Wave

I continued my examination of the heat wave by looking at how neighboring electric systems performed. The event was continental in scale: U.S. weekly electricity output exceeded 100,000 GWh for the first time. I focused on neighboring regional transmission operators PJM, ISO New England, Midcontinent Independent System Operator (MISO), Ontario's Independent Electricity System Operator (IESO), and Hydro-Québec to determine whether wind and solar were available when demand was highest.

PJM experienced the most serious conditions. It set an all-time peak of 168,158 MW on July 2, moved through emergency procedures to Energy Emergency Alert 2, issued a "Deploy All Resources" notice, and relied heavily on demand response. Forced outages were high and reserves fell sharply. Nuclear, coal, and gas provided most generation during the event, while wind output was poor and solar could not help after sunset. PJM avoided firm load shedding, but only narrowly.

MISO and Ontario also experienced weak wind during high-load conditions. MISO got through the event with coal, gas, and solar rather than wind. Ontario wind output was minimal while gas generation filled the gap. In contrast, ISO New England's offshore wind was helpful, but I do not believe one favorable geographic outcome proves that wind can be counted on during all heat waves. If the high had been centered more to the northeast they would have had the same problems as the others.

The Canadian hydroelectric backstop was also less dependable than assumed. Hydro-Québec and Ontario had storm-related outages, while the Champlain Hudson Power Express connection was unavailable during parts of the episode due to equipment issues.

My main conclusion is that broad summer heat domes can suppress wind generation across large regions at precisely the time electricity demand is greatest. New York cannot assume neighboring systems will have surplus power available if our neighbors pursue the same weather-dependent resource strategy.

NYISO's New Resource Outlook - Affordability Implications

I reviewed NYISO's 2025–2044 System & Resource Outlook with an emphasis on affordability. Although NYISO describes the report as a reliability and resource-planning exercise rather than a cost study, I believe its results make the cost implications of Climate Act implementation unmistakable.

The Outlook evaluates 20 scenarios. The most consequential finding is that a fully zero-emissions system could require approximately 105 GW of new resources under higher-demand assumptions. In contrast, policy-relaxed scenarios that retain repowered or new dispatchable fossil generation require roughly 30–60 GW, while scenarios without clean-energy targets require 10–35 GW. New York has added less than 15 GW in the past 25 years. I believe the report shows that if the Climate Act is not modified substantially, it will require an unprecedented infrastructure buildout, the cost of which will ultimately be borne by ratepayers.

The Outlook also relies on as much as 30 GW of hydrogen-fueled generation in full zero-emissions scenarios to provide firm capacity during extended periods of low wind and solar output. However,

NYISO warns that hydrogen generation is not commercially available at the necessary scale and would require major new fuel-production, storage, and transportation infrastructure.

Downstate customers face particular risks. NYISO projects rising load payments in New York City and Long Island as retirements outpace dependable replacement capacity, increasing reliance on imports and higher-cost resources. It also states that current resource contracted developments—even assuming all contracted renewable projects are completed—will not meet future system needs.

I support NYISO's recommendations for targeted transmission improvements, particularly where they can increase use of existing infrastructure. However, I conclude that policymakers should recognize that zero-emissions policy stringency is the largest controllable cost driver, The state should reconsider mandates that require unproven, expensive resources.

My Affordability Presentation at Stop Energy Sprawl Connect Across the Lines Conference

Last weekend I gave an affordability presentation for the Stop Energy Sprawl Conference. Stop Energy Sprawl is a coalition of community groups, municipalities, and elected officials from localities in New York State targeted by land-wasting, large-scale wind and solar projects located far from where that energy is needed. This post provides documentation for my presentation and provides a concise explanation of my longstanding concern that the Climate Act's implementation process has treated affordability as a slogan rather than a measurable constraint.

I began by explaining that low project-level renewable costs do not equal the cost of a reliable electric system. Claims that wind and solar are "cheap" typically rely on levelized cost of energy, which measures the cost of producing electricity when a facility is available. It does not include the full cost of transmission, interconnection, battery storage, backup generation, grid-support services, and firm resources needed when wind and solar output is low. Consumers pay for an integrated electric system, not isolated megawatt-hours.

I also discussed the State's affordability messaging. The Climate Act and State Energy Plan lack a clear definition of what household cost burden is acceptable. Meanwhile, nearly 1.3 million New York households were at least 60 days behind on utility bills in 2025, with arrears exceeding $1.8 billion. The biggest transition costs remain ahead.

The State Energy Plan's affordability claims omit a critical comparison. Its own supporting analysis indicates that when the cost of equipment is considered that monthly household costs for a high-efficiency electrification pathway are approximately $1,968, compared with $1,374 for conventional replacements, a difference of $594 per month.

Finally, I discussed Kris Martin's analysis of future ratepayer costs. Current charges may appear modest only because the renewable buildout remains incomplete. If the State follows through on its mandates, renewable-credit costs, transmission expenses, and related charges will increase substantially.

I concluded that New York should replace inflexible Climate Act mandates with an affordability-first, technology-neutral strategy that delivers practical emissions reductions without imposing costs on ratepayers that are disproportionate to the State's limited influence on global emissions