Pragmatic Environmentalist of New York Summary Update August 25, 2025 – September 7, 2025
This is a summary update of posts at Pragmatic Environmentalist of New York over the last two weeks. 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.

Draft Energy Plan
The are many Climate Act initiatives currently under review in New York. Most important in my view is the draft State Energy Plan. The New York State Energy Research & Development Authority (NYSERDA) is developing the supporting analyses. I have provided background information and a list of previous articles on my Energy Plan page.

Bait and Switch Draft Energy Plan Costs
I recently explained how the analyses for the Draft Energy Plan are hiding the true costs to meet the Climate Act targets. Energy Bad Boys Mitch Rolling and Isaac Orr published an article that describes a similar evaluation that has the same flaw. It does a great job of explaining the problem.

The first prerequisite to considering Draft Energy Plan affordability is a clear and transparent accounting of all the projected costs to meet the Climate Act mandates, not just the Climate Act mandated programs. NYSERDA excludes substantial compliance costs because they are related to legacy programs in place before the Climate Act was passed.

Authors Rolling and Orr describe the challenge of modeling future energy possibilities.

> Whenever you see a regulatory agency like the Environmental Protection Agency (EPA) or a utility company crow about how much an energy proposal or regulation will save or cost Americans, the first thing you should do is ask: "Oh yeah? Compared to what?"
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> It's important to ask this question because these entities never report the true cost of a proposal compared to today's costs, but instead, they compare the costs to some imaginary future baseline scenario that is often even more expensive.
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> This deceptive bait-and-switch tactic allows utilities and regulatory agencies to hide the true costs of their onerous regulations or integrated resource plans in a B.S. baseline. It also allows these entities to dishonestly claim their preferred policies will save energy consumers money—when in reality, they won't.

Rolling and Orr go on to describe exactly how this "bait and switch" process works. I recommend reading it to appreciate how this all works. The process is exactly the misleading approach used by NYSERDA in the Draft Energy Plan. I believe that the majority of New Yorkers agree with me that we

want to know the total cost, irrespective of which regulation requirement, of the Energy Plan projects that will be necessary to meet the net-zero and electric system mandates of the Climate Act.

Rochester Hearing Personal Comments on the Draft Energy Plan

This post documents the oral comments I submitted at the Draft State Energy Plan Public Hearing on September 4, 2025, in Rochester. With only two minutes to talk I needed to explain why I commented that the State must define affordability, reliability, and clean energy.

The Overview for the Draft State Energy Plan explains that "the State Energy Plan provides broad policy direction that guides energy-related decision making within New York State", and includes "an outlook through 2040 with recommendations for meeting future energy demands that prioritize an energy system that is reliable, clean, and affordable while supporting economic development, equity, and a healthy environment." Clearly this is a public relations statement checking all the politically sensitive topics.

All the slogans in the Overview are meaningless unless these terms are defined. I have long argued that Public Service Law (PSL) Section 66-P, "Establishment of a renewable energy program", includes bounds on implementation that have not been considered to date. I have shown that one of the provisions of that regulation and other circumstances already warrant the PSC commencing a hearing process to "consider modification and extension" of New York renewable energy program timelines.

I mentioned two aspects of reliability that need to be addressed. An electric system that relies on wind and solar is dependent upon weather variability. The Integration Analysis, Pathways Analysis, Public Service Commission, NY Independent System Operator, and independent work by Cornell's Lindsay Anderson all agree new dispatchable, emissions free resources (DEFR) will be required to backup wind and solar during dark doldrums. The relevant reliability question is how much is needed? The second reliability aspect is safety. What happens to an all-electric energy system when there is an ice storm?

I also addressed "clean" energy. The Scoping Plan considered every possible environmental impact associated with fossil fuels but ignored all the environmental impact associated with the manufacture of wind turbines, solar panels, and energy storage batteries. That means that there hasn't been a direct comparison of impacts. NYSERDA environmental impact accounting has not addressed the shorter expected lifetimes of those technologies. Finally, the last cumulative impact analysis was completed before the Climate Act was passed.

It is troubling that New York energy policy has been dominated by political mandates that ignore physical reality. I am convinced that nothing that the energy experts responsible for the electric system say will change the disastrous path of the Draft Energy Plan. It is going to take a political policy shift to avert disaster. If you are concerned, demand accountability from the NYSERDA energy plan and please speak out to your elected officials.

Implications of the 2025 Spanish Blackout on the Draft Energy Plan

On April 28, 2025, a problem at a photovoltaic plant in Spain triggered a blackout over the Iberian Peninsula. I believe that this event should be considered in the New York Draft State Energy Plan.

The presumption in the academic energy studies that guided the Climate Act is that if there is enough generation, no matter the source or where it is located, to balance the load, then the system will work. Meredith Angwin authored an entire book, Shorting the Grid – The Hidden Fragility of Our Electric Grid devoted to the unacknowledged difficulties associated with the shortcomings of wind, solar, and energy storage resources related to maintaining voltage and overall system reliability not considered in the Climate Act. The Spanish blackout should be a wakeup call to New York politicians that the technical experts at the New York Independent System Operator and New York State Reliability Council should be fully integrated into the Energy Plan process.

This post describes two articles by Watt-Logic wrote describing the underlying reasons and specific trigger that led to the blackout in Spain earlier this year. The first article described the physics of power grids and the general behavior of both synchronous generation (gas, hydro and nuclear) and inverter-based generation (wind, solar and batteries). The second post addressed what we know about the Iberian blackout. The problem is that not only do inverter-based resources like wind, solar and energy storage not provide transmission support inherent in existing generators, but they can also de-stabilize the grid in certain, poorly understood circumstances.

The post also describes a recent Doomberg blog post that explains that after the blackout in Spain earlier this year "the true cost of solar can no longer be hidden from the public." They concluded:

> In reality, while the marginal cost of sunlight is zero, the true system cost of integrating solar into a modern grid includes the heavy and ongoing capital expenditures needed for transmission, stabilization, balancing services, and energy storage. Without those, the electricity produced cannot be delivered reliably, making it far less "cheap" than advocates claim.

One of the presumptions in the Draft Energy Plan is that solar generation is cheaper than natural gas. They need to acknowledge that the head of the United Nations says that for every dollar spent on solar capacity, another dollar must be spent on transmission upgrades to prevent blackouts.

Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate

On July 29, 2025 the Department of Energy released the Critical Review report. Rather than drafting a summary of the report, I quoted the Background and Overview from the Federal Register Notice of Availability: A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate (NOA). This post describes differences between that report and the Draft Energy Plan Climate Change, Adaptation and Resiliency chapter that is based on the 2024 New York State Climate Impacts Assessment (NYSCIA).

I will only provide two examples of the many substantive differences between the Critical Review and the Climate Chapter. Impacts of global warming are proportional to GHG emissions. The NYSCIA bases its future impact projections on a particular scenario called Representative Concentration Pathway 8.5 that provides the biggest potential impacts for the Draft Energy Plan climate change chapter. The NOA

notes that "There is evidence that scenarios widely-used in the impacts literature have overstated observed and likely future emission trends." The use of this scenario is pervasive in NYS climate change reports and impact assessments. The result is that those documents all overstate the potential benefits of GHG emission reduction programs.

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The Preamble to the Climate Act legislation claims that: "Action undertaken by New York to reduce greenhouse emissions will have an impact on global greenhouse gas emissions and the rate of climate change." The NYSCIA document is completely consistent with this languate and there isn't even a suggestion that there might be uncertainties. The NOA presents a persuasive case that "U.S. policy actions are expected to have undetectably small direct impacts on the global climate, and any effects will emerge only with long delays." Needless to say, New York impacts are even lower.

The challenges of achieving a 100% renewable electricity system in the United States

This post describes an article, The challenges of achieving a 100% renewable electricity system in the United States, that came out in June 2021 prior to the preparation of the Draft Scoping Plan that should have guided the development of the plan. The authors represent Federal government renewable energy thinking at the time NYSERDA was preparing the Scoping Plan.

One fundamental flaw in the Climate Act was the mistaken belief by the authors of the law that no new technology would be required so costs would be low and reliability maintained. This article notes that:

> Significant unanswered questions remain regarding moving toward or achieving 100% renewable energy (RE) at a national scale for all hours of the year. There is no simple answer to how far we can increase RE penetration before costs rise dramatically, or reliability becomes compromised.

In my opinion, these findings should have been incorporated into the Scoping Plan. The impacts of the failure to do so are evident now and will be felt for years to come if there is no pause in implementation to consider how best to proceed. While the Climate Act mandates a net-zero transition, the Public Service Commission (PSC) also has a broad mandate to "ensure access to safe, reliable utility service at just and reasonable rates." It is not at all clear that the Climate Act "zero-emissions" electric system can meet the PSC mandate because of the issues raised in the Challenge Article.

This article makes an irrefutable case that there are unsolved issues that require further research. Given that uncertainty, the Scoping Plan should have incorporated safety valves that, if exceeded, would trigger a pause to develop an alternative approach to address the cause of the exceedance.

Climate Act Safety Valve Filing Exhibits .

Last month I submitted a filing that I prepared with Richard Ellenbogen, Constatine Kontogiannis, and Francis Menton to PSC Case 22-M-0149. The filing argued that there are sufficient circumstances to warrant the PSC commencing a hearing process to consider modification and extension of New York Renewable Energy Program timelines consistent with Public Service Law (PSL) Section 66-P bounds on implementation. An earlier post describes our main argument but only mentioned the attached supporting exhibits. This post provides details on exhibits submitted with the filing.

Exhibit 3 - Affordability-Focused Recommendations documents references to affordability and reliability recommendations in the New York Department of Public Service (DPS) Document and Matter Management (DMM) System. There have been at least six calls for safeguards but there has been no response by the Department of Public Service. I intend to keep pushing this approach until it gets addressed.

The biggest reliability issues was addressed in two exhibits. Exhibit 4 - Resource Gap Characterization describes the challenges of defining the frequency, duration, and intensity of low wind and solar resource availability (known as dark doldrums) events. New York needs an evaluation over as long a period as possible to determine how much backup energy is needed in the worst case. That is needed to define a probabilistic range of return periods for dark doldrum events. The result would be metric like 100-year floods that could be used for electric system planning.

Even if a robust probabilistic parameter is developed and used for future resource planning it would not allay all my reliability concerns. Today's electric system resource planners for a conventional system base the amount of capacity that they think will be needed based on decades of observations of the fallibility of power plants. The result is that they have a good understanding of how much surplus capacity is needed to ensure there is adequate electricity for expected peak loads.

A fundamental observation is that there is no expectation that the failure of conventional power plants will occur at the same time. I am very concerned that the energy system mandated in PSL 66-P will rely on wind and solar generators that are highly correlated, that is to say, many will have reduced output at the same time. This is an enormous challenge that has not been adequately addressed.

Exhibit 5 – Dispatchable Emissions-Free Resources explains that to provide sufficient backup electricity during a dark doldrum a new resource that is not currently commercially available is needed. Proceeding under the assumption that such a resource can be developed, tested, and deployed as needed risks investments in false solutions and poses significant reliability risks.

The Overview for the Draft State Energy Plan states that it is "Advancing abundant, reliable, affordable, and clean energy for all New Yorkers." Unfortunately, the Hochul Administration has yet to define those terms. This filing made the case that boundary conditions must be established for reliability, affordability, and clean energy. Without bounds we are flying blind towards a future energy system catastrophe.