**Pragmatic Environmentalist of New York Summary Update May 27, 2024 to June 9, 2024**

This is my fortnightly summary update of recent posts at Pragmatic Environmentalist of New York. 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). This summary describes each of my recent posts with minimal technical jargon but includes links if you want to read the entire post. If you do not want to be on this mailing list, then let me know. Previous updates and a pdf copy of the following information are also available.

Wind and Solar Resource Availability Fatal Flaw Also published at Watts Up With That

I have been following issues associated with wind and solar resource availability for many years. My thinking has evolved to the point where I now believe that in a rational world it would be recognized that any electric grid relying on wind and solar is doomed to failure.

The reason we can never trust a wind, solar, and energy storage grid is because if we depend on energy-limited resources that are a function of the weather, then a system designed to meet the worst-case is likely impractical. The Independent System Operator for New England determined the system risk defined as the total unavailable supply plus the exceptional demand during 21-day events starting in 1950. The analysis found that the most recent 10-year planning lookback period would plan for a system risk of 8,714 MW. However, if the planning horizon covered the period back to 1961, the worst-case for the whole period, an additional 446 MW would be required to meet the system risk. I cannot imagine a business case for the deployment of energy storage or the magical dispatchable emissions free resource needed to provide that 446 MW that will only be needed once in 63 years. For one thing, the life expectancy of these technologies is much less than 63 years. Even over a shorter horizon such as the last ten years, how will a required facility be able to stay solvent when it runs so rarely without large subsidies and high payments when they do run.

In my opinion any electric system that depends on wind and solar is impractical. Obviously, if the goal is a zero-emissions electric system then nuclear must be the cornerstone. If affordability is a concern, then the pragmatic acceptance of a large reduction in emissions rather than a zero target would allow the use of some natural gas as proposed by Russell Schussler and myself last year. Given the entrenched crony capitalists and special interests supporting wind and solar any shift in direction, even if necessary to protect health and safety, will be a tremendous lift.

GAO Information on Peaking Power Plants Also published at Watts Up With That

Environmental Justice (EJ) advocates like the PEAK coalition argue that "Fossil peaker plants in New York City are perhaps the most egregious energy-related example of what environmental injustice means today." This post critiques a recent General Accounting Office (GAO) report on "Information from Peak Demand Power Plants" that was prepared in response to a question about pollution from these facilities by some congressional representatives.

The GAO report fails to adequately address the challenges ignored by the congressional representatives

who asked for the report and the EJ activists who have conjured this up as an issue. In doing so they did a real disservice to society. The reality is that we need peaking units and the public is protected from direct harm from these units by the NAAQS.

It is troubling that the report does explain why the concerns are unwarranted, but the presentation hides them. It is only possible through a complete reading of the entire report to discover contrary evidence eviscerating this as an issue. For example buried in the technical appendix the last sentence in the last paragraph before the end notes is the caveat that they could not claim that distance is linked to the communities of concern: "our findings of associations between distance to peakers and historically disadvantaged racial and ethnic communities does not imply any causal relationships"

The bigger picture problem is the potential threat that political and activist pressure will force premature retirement of peaking power plants with a marked increase in potential reliability risks. A blackout will have real ramifications as opposed to the over-hyped risks claimed. I believe that if this report had emphasized the issues instead of burying them the possibility of a rash premature retirement initiative would have been reduced.

## Status Update on Wind and Solar Capacity Factors

I used the New York Independent System Operator (NYISO) Load & Capacity Data Report (also known as the "Gold Book") to determine the New York State wind and solar capacity factors in 2023. I compared the observed values with the Integration Plan which is the State's control strategy to meet the Climate Act mandates.

I found that the observed land-based wind capacity factor was 21.8%. The Integration Analysis modeled the 2020 capacity factor as 29% but the observed capacity factor was only 23.9%. The capacity factor for solar facilities reporting to NYISO was 16.6%. The Integration Analysis assumed a capacity factor of 17% in 2020 increasing to 20% by 2030.

It is troubling that the differences observed capacity factors and the Integration Analysis capacity factors have not been reconciled. This matters not only because the differences affect the projected outcomes and the costs, but also because Integration Analysis projections are being used for the New York Cap-and-Invest (NYCI) Program proposal. A key component of the NYCI plan is the trajectory for allowance allocations. NYCI's reduction trajectory is based on the Integration Analysis and the overly optimistic capacity factors used means that they are projecting lower emissions than is likely to occur. That imbalance could have significant consequences to the allowance market.

## National Grid Net-Zero Transition Plans Ignore Ratepayer Concerns

Syracuse Post Standard reporter Tim Knauss recently wrote two articles that expose the disconnect between the executives in the electric industry and their customers. I live in Upstate New York and National Grid is my electric utility. National Grid is the electricity system operator for Great Britain. In 2000 National Grid started purchasing utilities in the United States and now is "an electricity, natural

gas, and clean energy delivery company serving more than 20 million people through our networks in New York and Massachusetts."

Nation Grid recently announced plans for a £60bn Net Zero overhaul of National Grid. Tim Knauss did an article about the New York portion of the investment plan. He described the New York component of the plan:

> The $16 billion plan represents a 60% increase over what National Grid has spent during the past five years. It includes a $4 billion project under way to improve 1,000 miles of transmission lines, which National Grid calls the "Upstate Upgrade." Other projects have not yet been identified.

Knauss also quoted spokesperson Jared Paventi: ""Will there be an impact for the customer? Yes, but I believe that it's going to be negligible based on the time period that we'll be recovering those costs," Paventi said."

Less than a couple of weeks later National Grid announced a rate case proposal. Tim Knauss also wrote an article on this announcement. He wrote:

> In 2020 National Grid asked for a $142 million increase in annual electric and gas delivery revenues. This year, the utility is asking for $673 million. If the Public Service Commission goes along, that would raise National Grid's electric delivery revenues by 20% and its gas revenues by 28%. A typical household would pay $440 a year more for electricity and gas.

The impetus for this article was spokesperson Jared Paventi's claim that the costs for the investments will be "negligible". Knauss provides the data that suggests otherwise. He points out that "In an order issued last year to approve $4.4 billion in new transmission lines planned by several utilities, the state Public Service Commission estimated the work could increase residential bills by about $3.50 a month, decreasing over time." The New York Net Zero Overhaul estimate is $16 billion. That will cause residential bills to increase an additional $12.73 per month. I don't call that negligible and that is only a small portion of the total increases proposed in the rate case.

I concluded that there is no question that electric utilities have determined that implementation of net-zero transition plans will be risky and costly for their customers. However, I believe they have also determined that implementation is in their financial best interest. Similarly, the regulatory agencies certainly have technical experts who understand the risks but the political appointees in charge ignore their counsel because their handlers are catering to a specific constituency. This does not portend well for everybody else.

There is a glimmer of hope. It is only a matter of time until the cost blowback begins on these rate cases. On June 5, 2024 Hochul indefinitely paused implementation of the New York City congestion pricing plan. The rate cases will cause the costs of energy to increase for more people and the Climate Act is a big part of the increase. Hochul said, "it's not the right time" for congestion pricing as "New Yorkers face a cost-of-living crisis". Hopefully this will be draft language for a walk back on the aspirational Climate Act implementation plan when the true costs become clear.

Articles of Note June 9, 2024

This post is a summary of information and articles that I think would be of interest to my readers. This description highlights some of the articles.

**New York City Panel Discussion on Net-Zero Economy**

Francis Menton invites folks to a panel discussion on the costs and consequences of pursuing a "net zero" economy. Experts Benny Peiser and Francis Menton will share their outlook for Europe's present and America's future.

**Event Details:**

Wednesday, June 12
3 West Club
3 West 51st Street
6:00 PM: Reception
7:00 PM: Program

**Videos**

Tornadoes 1 – Wind Turbines 0 – Video of a tornado going through a wind farm shows the expected results.

Practical Engineering takes on the concept of reactive power.

Podcast - Sunblocked: Resistance to Solar in Farm Country Shepherd's Run in Copake, NY

**Congestion Pricing**

New York City's congestion pricing program was supposed to take effect at the end of June. Energy Mix quoted Governor Hochul: "After careful consideration I have come to the difficult decision that implementing the planned congestion pricing system risks too many unintended consequences," Hochul said June 5. "I have directed the MTA [Metropolitan Transportation Authority] to indefinitely pause the program." It is all part of the political calculus and Hochul backed off due to the costs. "I can't do anything right at this time that would also suck the vitality out of this city when we're still fighting for our comeback," she told reporters at a news conference.

This raises a question. The congestion pricing plan was expected to generate $1 billion a year. At the Energy Access and Equity Research webinar sponsored by the NYU Institute for Policy Integrity on May 13, 2024 Jonathan Binder stated that the New York Cap and Invest Program would generate proceeds of "between $6 and $12 billion per year" by 2030. At what level will the cap and invest program suck the vitality out of New York State?

I also highlighted articles about solar energy issues, offshore wind problems, energy storage fire in California, Inverter-based resources, and a wind lull that covered all of Australia. Paul Homewood describes a new publication by Vaclav Smil, a 48-page report titled "Halfway Between Kyoto and 2050: Net Zero Carbon Is a Highly Unlikely Outcome. Bjorn Lomborg wrote an op-ed for The Wall Street Journal (accessible here) that the West should make economic growth a priority again and stop hemorrhaging their resources on climate policies that mostly enrich China and one for the New York Post that makes a convincing argument that Green activists don't care how many people will die from zero fossil fuel use. There is a discussion about it at Climate Realism.