Pragmatic Environmentalist of New York Summary Update August 19 – September 1, 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 and 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. 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.

Pragmatic Recommendations for Climate Act Review

The Business Council of New York (BCNY) recently shared a set of concerns and recommendations addressing the state's climate change response efforts, driven by mandates in the Climate Leadership & Community Protection Act (Climate Act). This post proposes a path forward for review of the Climate Act.

Recently three reports have come out that raise specific concerns about Climate Act implementation: schedule ambition, costs to implement, and electric system reliability risks. The New York State Comptroller Office released an audit of the NYSERDA and PSC implementation efforts for the Climate Act titled Climate Act Goals – Planning, Procurements, and Progress Tracking ("Comptroller Report") that found that: "The costs of transitioning to renewable energy are not known, nor have they been reasonably estimated". The Public Service Commission (PSC) released the Clean Energy Standard Biennial Review Report ("Biennial Report") that compares the renewable energy deployment progress relative to the Climate Act goal to obtain 70% of New York's electricity from renewable sources by 2030 (the 70% goal) and found that 2030 goal will likely not be achieved until 2033. The New York Independent System Operator (NYISO) 2023-2042 System & Resource Outlook ("Resource Outlook") described issues that threaten reliability and resilience of the current and future electric system.

BCNY released their statement because it represents concerns expressed by various impacted businesses across New York about "the achievability of key Climate Act mandates and what that means for the future reliability and cost of the state's energy system." The statement calls for the "state to identify and make necessary mid-course corrections based on updated information and significant economic and market changes." The statement argues that "These steps are essential to avoid significant unintended impacts on the well-being of New Yorkers and on the state's economic competitiveness."

There is a provision for renewable energy programs that should be the foundation of the recommended reassessment. The Biennial Report refers to New York Public Service Law § 66-p (4). "Establishment of a renewable energy program". It states: "The commission may temporarily suspend or modify the obligations under such program provided that the commission, after conducting a hearing as provided in section twenty of this chapter, makes a finding that the program impedes the provision of safe and adequate electric service; the program is likely to impair existing obligations and agreements; and/or

that there is a significant increase in arrears or service disconnections that the commission determines is related to the program". The question is how this provision should be implemented.

I believe the reassessment should have two components. Firstly, definition of the safety valve criteria in §66-p (4) is necessary. What are the criteria for unsafe and inadequate electric service, impairment of existing obligations and agreements, and unacceptable increase in arrear or service disconnections? In my opinion, the Climate Action Council, PSC, and NYISO should propose suitable criteria for consideration. The other component should make the data necessary to determine the criteria status available openly and transparently.

The three agency reports raise legitimate reasons to be concerned about the mandates and schedule of the Climate Act. The BCNY statement echoes those concerns and recommends a review and consideration of mid-course corrections. There is a legal provision to "temporarily suspend or modify the obligations" of a renewable energy program that defines criteria consistent with the concerns raised by the BCNY, the PSC Biennial Report, the Comptroller Report audit of Climate Act implementation, and the NYISO Resource Outlook. If the §66-p (4) criteria are explicitly defined and compared to observed data, it would form the basis for a pragmatic review of the Climate Act.

August 2024 Update on the New York Cap-and-Invest Plan

On August 15, 2024, the New York State Department of Environmental Conservation (DEC) and the New York Energy Research & Development Authority (NYSERDA) hosted a stakeholder meeting for the New York Cap-and-Invest (NYCI) Program. The agencies presented "a draft proposed framework for guiding the allocation of these funds and identification of potential areas that could receive investments" and also posed a series of questions seeking public feedback. The webinar presentation and recording are now available.

NYCI implementation is running behind schedule, which is in part due to lack of staffing, but I think political considerations are the primary reason for the delay. The Hochul Administration is certainly cognizant of costs for environmental initiatives. On June 7, Governor Hochul explained that she reversed the decision to proceed with the New York City congestion pricing plan because of costs.

NYCI costs will be much more and affect many more people than New York City congestion pricing. 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. The current NYCI proposal outline analyzed allowance prices starting at $23 in 2025 with 5% escalation for 2026, and an increase to $54 in 2027, escalating by 6% annually thereafter. Note that the cost increase comes after the next gubernatorial election year. The New York State legislature elections are coming up in November. I am now convinced that a major reason for the NYCI regulation delays is related to those elections.

The stakeholder process for this framework for guiding the allocation of NYCI funds and identification of potential areas that could receive investments is entirely appropriate. It will guide the legislative

process to allocate at least $6 billion per year. However, it does not appear that the proposed framework is going to prioritize funding emission reduction strategies consistent with allowance reduction trajectories consistent with the Climate Act mandates. I believe that funding ambitious clean energy investments is more difficult than acknowledged. My analysis of the Regional Greenhouse Gas Initiative proceeds shows that the investments averaged $565 per ton reduced. This presentation proposed investments that do not prioritized emission reductions relative to other mandates. There was no acknowledgment that NYCI funding priorities should consider observed cost effectiveness results and be consistent with the NYCI allowance allocation reduction trajectory.

One of the characteristics of the proposed net-zero Climate Act transition is over-reliance on the presumption that control strategies that have worked elsewhere will work in this application. NYCI is a prime example. Past performance does not guarantee future success. Given the differences between past successful programs and the one proposed I am convinced that NYCI will fail to deliver as advertised. Coupled with the lack of emphasis on emission reductions NYCI will fail to provide emission reductions necessary for the Climate Act mandated targets.

Offshore Wind Meets Reality

Last month I described a flurry of offshore wind related news and this post documents additional issues. The Hochul Administration's Integration Analysis projects that offshore wind capacity will exceed 13 GW by 2040 so offshore wind must succeed if Climate Act targets are to be met.

Bud's Offshore Energy reports that the "highly unusual and rare" talking point for turbine blade failures seems to have finally been discarded given that three blades have failed shortly after installation of 48 turbines at Dogger Bank and Vineyard Wind. There are indications that the present design is simply not strong enough but making the blades stronger is going to cost a lot of money.

Paul Driessen points out that one broken wind turbine blade shut down Massachusetts beaches and asks what would happen if a hurricane struck. He notes that Vineyard Wind will have 62 wind turbines and a total capacity of 0.8 GW and that the Biden-Harris offshore wind plan calls for 30 GW of generating capacity by 2030. He points out:

> NOAA records for landfalling hurricanes – those that actually hit US beaches and cities – reveal that 105 Category 1-5 hurricanes struck the Atlantic seaboard, from Florida to Maine, from 1851 through 2023. Add in those that remained at sea, where the turbines will be, and that number could double.

He explains that extensive damage to the thousands of wind turbines proposed will include:

> Floating slabs of broken turbine blades would endanger boats for months or years, until they are retrieved, hauled ashore and landfilled. Cleaning up billions of sharp shards of fiberglass – each an inch to a couple feet in length, and nearly invisible – would likely take decades, during which time they would impale and imperil beach walkers, swimmers, fish, whales, dolphins and other marine life.

Beege Welborn has a nice overview article: Blade Failures Continue and Don't Go Missing in an Offshore Wind Farm on the Hot Air website. The article describes blade failures in Missouri, covers the problems at Vineyard Wind, notes that the plans for huge offshore wind farms require mind-boggling amounts of material, and notes that there are radar interference issues with planes and offshore wind farms. Finally the article includes a reference to an incident where a thug disrupted an offshore wind forum in Newport, RI by forcibly taking a shard being shown to the audience.

These latest revelations suggest that a reassessment of the viability of offshore wind projects is in order. The technology has not been tested on the scale proposed and it appears that there are survivability issues even without storms. What could possibly go wrong?

Future Role of Nuclear Power Worries Environmental Advocates

In a recent article describing a new category of generating resources called Dispatchable Emissions-Free Resources (DEFR) I noted there still are people who maintain that existing technologies—led by solar and wind—can solve the climate crisis. A recent op-ed by journalist Karl Grossman titled "With New York's climate action goals in question, governor's comments on future role of nuclear power worry environmental advocates" at Riverhead Local provides an example.

The author of the op-ed relied on Dr. Mark Z. Jacobson's 2023 book "No Miracles Needed: How Today's Technology Can Save Our Climate and Clean Our Air." Grossman interviewed Jacobson and quoted him as saying: "Whether New York can reach the 70% goal by 2030 is a matter of social and political willpower. It is not a question of technology or economics." In my recent article about DEFR I explained why I know that Jacobson is wrong. Even the Climate Act Scoping Plan acknowledges the need for the new DEFR technology directly contradicting Jacobson's primary claim.

The Grossman op-ed described how environmentalists are reacting to reports that Governor Hochul is considering delays to the Climate Act schedule. Not surprisingly they claim that the state has not done enough on renewable energy.

> Judith Enck, for seven years regional administrator of the U.S. Environmental Protection Agency for an area that includes New York State and before that deputy secretary for the environment for two New York governors, said delaying the 70% goal "is a terrible decision by the governor. I hope she revisits it. We're in a climate crisis. She says things have changed—and they have: the climate crisis has gotten worse. The governor should look at ways to accelerate meeting the goals, not delaying them." Renewable energy, she said, is not a priority for state government.

Environmental advocates ignore or disparage analyses such as the NYISO 2023-2042 System & Resource Outlook that describes issues that threaten reliability and resilience of the electric system. NYISO cannot bluntly say this cannot work as proposed on the schedule mandated but that is the underlying message.

In response to suggestions that nuclear power might play a greater role in the great transition Grossman quoted Enck:

> "I think the governor even speculating on nuclear power in New York is trouble." Enck spoke of how decades were spent in "shutting down the Indian Point nuclear plants" 25 miles north of New York City. We "shouldn't promote the same thing again."

Nuclear is the only proven DEFR technology that can be expanded sufficiently to fulfill the energy requirements of the Climate Act goals. Nuclear energy generates zero-emissions electricity that will not be interrupted by weather or fuel delivery issues, provides firm power that does not require supplemental ancillary transmission support, has low land-use requirements, and requires less transmission development than wind and solar. It is a mystery to me why any environmental advocate continues to harbor this irrational fear of nuclear power and consider its use troubling,

On August 5 Governor Hochul announced a Future Energy Economy Summit that will "gather feedback on strategies to accelerate renewable energy deployment and explore the potential role of next generation clean energy technologies". Grossman's op-ed is the first article I have seen to suggest that nuclear power should not be one of the next generation clean energy technologies. In my article describing the announcement of the summit I noted that it will be interesting to see how legislators, the Big Green NGOs, climate activists, and the renewable energy shills react to nuclear power. Based on this article it appears climate activists will not acknowledge that nuclear and other pragmatic considerations are necessary for the Climate Act implementation.

Commentary on Recent Articles 21 August 2024
This is an update of articles that I have read that I want to mention but do not require a detailed post. Previous commentaries are available here.

Brenda Hansen explains why she opposes renewable energy in a post republished at Energy Security and Freedom Substack. I especially admire her explanation that she opposes large-scale solar and wind projects on moral grounds:

> The political movement to pivot away from high-density energy sources (such as fossil fuels, natural gas, and nuclear) and attempt to transition to solar and wind is unethical because it will diminish human flourishing and will harm my fellow human beings – starting first with the most vulnerable.

Hansen does a good job explaining that when it comes to human flourishing, energy matters. If energy is not abundant and affordable, then "people need to spend an inordinate amount of time seeking and obtaining it". The problem with renewables is that "Power from solar and wind is inherently unreliable, and this built-in characteristic of these energy sources will never change."

> "Do you care about human flourishing? Do you care about the vulnerable in the world – such as the children who are laboring in mines in the Congo or Angola to collect the rare earth metals and nickel and cobalt needed for your solar arrays, wind turbines, and battery systems? In your pride and arrogance – patting yourself on the back for your concern toward a carbon-free future – have you no shame for the green colonialism you are forcing on the most vulnerable nations

> and peoples of the world? Why don't you care about the science that reveals that what you are trying to accomplish – net zero – will only come at a devastating cost to humanity?"

Tom Shepstone provided a link to an op-ed about farming and mining that epitomizes pragmatic environmentalism. The question raised is "Why does it seem we are comfortable demanding a supply when we are uncomfortable supplying the materials to meet the demand?" The op-ed was written by the child of a farmer who was taught "that our choices have consequences, that sustaining our lives sometimes meant taking the lives of animals, and we had to accept responsibility for that and demonstrate compassion and gratitude for those resources." Now the author works Mining Minnesota and argues we need an honest conversation about the tradeoffs between the mining necessary for society and local impacts. Responsible mining can minimize impacts while providing the necessities for society only if pragmatic tradeoffs are accepted.

Alex Epstein describes easy-to-remember points on the advantages of fossil fuels with three articles describing core truths about fossil fuels:

1. We must think about fossil fuels in a balanced way.
2. Only by using fossil fuels can 8 billion people have the energy they need to survive and flourish.
3. The climate positives of fossil fuels far outweigh the climate negatives

Adirondack Explorer reports: Meteorologists this week confirmed, through the help of satellite data, that two more tornadoes hit upstate New York during the severe weather event of July 16 — meaning a total of seven twisters hit the Adirondacks that day.

The point is that these tornadoes would not have been counted before the advent of satellite and radar damage analysis. Claiming that climate change is here and happening now because there are more tornadoes is a weak argument because sampling differences affect trends.

> The recent additions were in remote, wooded areas without roads — necessitating a damage analysis through satellite and radar, said Christina Speciale, a meteorologist with the National Weather Service in Albany. An EF-1 tornado was confirmed in Limekiln on the Herkimer and Hamilton County border. That twister reached a high speed of 100 mph, and caused 4 miles' worth of damage. Another EF-1 tornado was confirmed in Wilcox Lake Forest on the border of Hamilton and Warren counties; the damage was similar to the one recorded in Limekiln.

I also described a post by Irina Slav that points out that the Paris Olympics was a test of net zero that "turned into a summary of the energy transition in a nutshell: a complete disregard of physical realities in favour of a fantastical goal that has about the same chance of succeeding as a vegan hockey team beating a meat-eating team." Finally, David Turver describes issues with time of use tariffs that he expects that will adversely affect consumers.

Commentary on Recent Articles 30 August 2024
I did a second commentary article.

Canadian Terry Etam describes the natural gas conundrum in which the widespread deployment of fracking technology enabled producers to accelerate the production of natural gas "while simultaneously driving prices into the toilet". Etam describes why natural gas prices have come down so much in the last 20 years and then goes on to explain why current energy prices make future predictions very uncertain.

I received an email from an interesting organization that can help is all understand energy policies. The National Center for Energy Analytics is a "new energy think tank devoted to data-driven analyses of policies, plans, and technologies surrounding the supply and use of energy essential for human flourishing." Executive Director Mark P. Mills explains:

> Modern civilization hinges on abundant, affordable, and reliable energy. Policies ignoring those fundamentals are doomed to fail. There is of course the constant refrain that an energy transition—a shift away from oil, natural gas, and coal—is not only underway, but accelerating. However, hydrocarbons continue to supply over 80 percent of America's and the world's energy, a proportion largely unchanged in two decades. The Inflation Reduction Act (IRA), designed to expedite a transition, is projected to cost between $2 trillion and $3 trillion, far exceeding initial claims. That level of spending, alongside similar state-level initiatives, means that energy issues are unavoidably a central feature of U.S. economic and policy debates.
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> Energy policies are essentially bets on how we can meet future demands. But, setting aside the usual aphorisms about predicting the future, history shows that innovators have always created far more ways to consume energy than to produce it. Thus effective energy policies must not only anticipate the future but also do so while simultaneously meeting the three core energy metrics of ensuring abundance, affordability, and reliability. The energy transition is a popular narrative, but the practicalities of physics, engineering, and economics point to a future that will see an enduring reliance on hydrocarbons.

Irina Slav captures my frequent feeling of helplessness when I try to see how uninformed political pressures are adversely affecting the energy system.

> One of the marks of helplessness is the frequent use of a specific word or a group of words to describe a situation you cannot change, which fact invokes the feeling of said helplessness.
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> I know this because I frequently use the word stupid and synonyms to describe the people leading us into the energy transition. This is in part because they are, indeed, stupid, and in part because I cannot do anything to stop them.

I recommend reading the article. She provides examples of the cost and environmental impacts of the "clean energy" transition in an entertaining way.

One of the arguments used by activists is that we must address climate change because we are seeing the effects now. As proof the apparent increase in the costs of disaster losses from the National Oceanic

and Atmospheric Administration (NOAA) are frequently cited. Roger Pielke, Jr. called their numbers out noting that their dataset is "a clever public relations gimmick, to be sure, but it should never be used in scientific research, climate assessment reports, or as a grounding for policy." Pielke concludes "Based on what NOAA has found, no one should be using the dataset in research or in a scientific assessment — Unless of course the goal is PR, not science."

Bill Peacock quantifies the subsidies given to fossil fuels, nuclear and renewables. He includes a table based on information sourced from Bennett, et al; U.S. Joint Committee on Taxation 2019 & 2023; U.S. EIA; Congressional Budget Office. Next time someone says that fossil fuel subsidies are larger than others remember this table.

Figure 1: U.S. Federal Energy Subsidies

Subsidy	2010-19	2020-2029	Total
Wind	$36,775,850,000	$69,744,000,000	$106,519,850,000
Solar	$34,396,471,000	$101,918,000,000	$136,314,471,000
Mixed Renewables & Batteries	$2,897,476,000	$73,212,000,000	$76,109,476,000
Renewables	**$74,069,797,000**	**$244,874,000,000**	**$318,943,797,000**
Coal	$12,850,000,000	$3,102,000,000	$15,952,000,000
Oil and Gas	$25,020,000,000	$12,155,000,000	$37,175,000,000
Sequestration & Emissions	$0	$7,217,000,000	$7,217,000,000
Fossil Fuels	**$37,870,000,000**	**$22,474,000,000**	**$60,344,000,000**
Nuclear	$15,410,000,000	$19,116,000,000	$34,526,000,000
Bio- and Other Fuels	$11,000,000,000	$30,371,000,000	$41,371,000,000
Other Energy Sources	**$26,410,000,000**	**$49,487,000,000**	**$75,897,000,000**
Total	**$138,349,797,000**	**$316,835,000,000**	**$455,184,797,000**

Peacock notes:

> Perhaps these claims are efforts to distract from massive renewable energy subsidies that are driving the "energy transition" from fossil fuels to renewables. As seen above, renewables received $74 billion from the U.S. government in 2010–19. They are expected to increase to $244 billion from 2020 to 2029. The subsidies are the only reason that wind and solar generation exist on the U.S. grid at commercial scale.

Peacock goes on to document the impacts on reliability and increased costs that are a direct result of these subsidies. I agree with his conclusion:

> When politicians take over markets, bad things happen. Costs increase, consumer choices are thwarted, and well-connected businesses get rich off taxpayers. We see all these things happening in the U.S. energy transition from fossil fuels to renewables. The only way to eliminate these and other harms is to let the market work and eliminate all energy subsidies—federal and state—in America.