Pragmatic Environmentalist of New York Summary Update December 12, 2022 to December 24, 2022

This is the latest summary update of my recent posts at Pragmatic Environmentalist of New York. As always, if you do not want to be on this mailing list then let me know. Previous updates are also available. One of the recipients suggested that I not send a pdf copy of the document because of the possibility that it could be hacked so this update and future updates will include the text in the email and a link to the document itself.

Climate Act Narrative: Heat Pumps are the Answer

I have been publishing articles about lost opportunities of the Climate Action Council. Instead of addressing overarching issues the Council spent far too much time addressing the personal agendas of some members of the Council. This post discussed the heat pump "solution" to home heating.

I argued that Council leadership paid too little attention to the nuances of their Scoping Plan narrative that heat pumps are a solution without issues. In order to determine the potential effectiveness of home heating electrification the range of cold temperatures needs to be known. At the November 21, 2022 Climate Action Council meeting Scoping Plan language about cold regions was discussed. Unfortunately, the discussion only focused on the justification of which regions were called the coldest in the Scoping Plan text. There was no discussion about the Integration Analysis choice of climatology to determine which combination of heat pump and building shell technology would work. I submitted comments that were never publicly addressed about the climatology used that raised acceptability issues. The greatest flaw in the Scoping Plan narratives is that "what if" questions are not addressed like what will happen when heat pumps are improperly installed and there isn't sufficient heat.

I concluded that the residential home heating plan proposed in the Scoping Plan under-estimates the degree of difficulty of this transition. The political narrative suggests that residential heating electrification is mostly just about installing heat pumps. However, proper design and installation, envelope efficiency, and the temperature difference between indoors and outdoors impact performance as much as the installation of a high-quality heat pump. The State is doing a disservice to the residents by not clearly acknowledging the complications for an adequate electric heat source. Finally, they have yet to propose a plan when heating is electrified and an ice storm knocks off power for days in the winter.

The big New York State Climate Act news was the approval of the Scoping Plan. I did a couple of articles for Watts Up With That that described the final approval.

New York's Climate Act Scoping Plan Process Template

Before the meeting to approve the Scoping Plan, I described my impression of the process explaining that it was relevant outside of New York because it gives a template for implementing a net-zero transition program.

The authors of the Climate Act legislation believed that meeting the net-zero target was only a matter of political will. I believe that any similar legislation will follow the script used in New York. Despite the apparent objectivity of the implementation framework, it is just is a façade. The Climate Act established the Climate Action Council to direct the development of the Scoping Plan but loaded its membership with either political appointees or at large members chosen because of their ideology and not their expertise.

I explained that similar programs will make a big deal about public participation. The Council has bragged about their stakeholder process noting that the comment period was longer than required. However, the number of comments submitted overwhelmed the Council and made it impossible for members to read all the comments. Consequently, they had to rely on Agency Staff to describe the comments submitted. In my opinion, there was clear bias in that process – anything inconsistent with the narrative was disparaged, downplayed, or ignored. Finally, the leadership of the Council emphasized the language in the Draft Scoping Plan and not technical issues. No comments associated with Integration Analysis technical methodology or errors were discussed at any of the Climate Action Council meetings and it is not clear that the Council members are even aware that specific integration analysis issues were raised.

New York Climate Act Scoping Plan Approved

The Climate Action Council voted to approve the Scoping Plan at the December 19, 2022 meeting. Materials for the meeting are available at the New York Climate meetings page including the meeting presentation and the meeting recording. I summarized the statements provided by Council members justifying their votes in three categories: the Hochul Administration's position, the at-large members who supported it and the three members who voted against approval. It is no coincidence, that those three members are also the ones with the most practical energy system experience.

These statements give a good overview of the positions and motivations of Council membership. I strongly endorse the statements of the three members who voted against the Scoping Plan. I believe they are on the same page as me. The Plan is just a framework that does not include a feasibility analysis to ensure the strategies proposed will maintain current standards of electric system reliability or the reliability of any other energy system component for that matter. Readers of my blog are well aware of the affordability crises that similar programs at other jurisdictions that are further along are experiencing this winter. The statements presented include a couple of references to a claim that the costs of inaction are greater than the cost of action. Earlier this year I posted an article describing the machinations used to make that misleading and inaccurate claim. I made those arguments to the Council in my verbal comments and followed up with detailed written comments but there was no acknowledgement of them by the Council. This whole process has been rigged from the start to get the pre-ordained answer. The proponents of the Climate Act Scoping Plan are bound and determined to dive into this net-zero transition plan. Unfortunately, they don't want to check to see if there is any water in the pool.

New York RGGI Funding Status Report CO_2 Emission Reductions

I have been involved with the Regional Greenhouse Gas Initiative (RGGI) since its inception and have written numerous articles about it. I recently published a summary of my analysis of the annual RGGI Investments of Proceeds report. RGGI auctions allowances each quarter and invests the proceeds. This new post addressed how well New York investments are reducing CO2 emissions in the state.
I used the data from the NYSERDA RGGI status reports to determine whether those investments affected observed emission reductions. I found that in 2000, New York generating unit emissions were 57,114,438 tons and in 2021 they were 28,546,529 tons, a decrease of 50%. The primary reason that emissions have dropped is because coal and oil fuels have essentially gone to zero. Natural gas has increased to cover the generation from those fuels but because it has lower CO2 emission rates the New York emissions have gone down.

Some of the reductions could have occurred after RGGI started in 2009 because RGGI investments displaced fossil generating unit operations. Unfortunately, the NYSERDA status reports do not provide sufficient information to evaluate this until 2013. The observed New York State emissions from RGGI-affected sources decreased between 2013 and 2021 by 5,397,135 tons. I believe that there are only two programs that directly displace electric generation by subsidizing renewable resources. Over the years 2013 to 2021, the total investment for those programs was $565 million and the claimed savings are 861,442 tons of CO_2e with a calculated cost benefit of 565 $/ton. Those CO2 reductions account for 16% of the observed emission reduction. Because observed CO2 emissions from coal-firing went from 5,463,637 tons in 2013 to zero in 2021 and CO2 emissions from oil-firing went from 3,871,162 tons to 313,115 tons over that same period, I conclude that the primary reason for the observed electric sector emission reductions in New York was due to fuel switching even after RGGI started.

There are implications for future emission reduction requirements for RGGI and the Climate Act. The observed emission reductions are primarily due to fuel switching in New York, but coal and oil emissions from the RGGI affected sources are as low as they are going to get without retirement of oil-fired sources. The average CO2 emissions reduction per year has been 95,716 tons since 2013. New York Part 242 CO2 Budget Trading Program specifies an annual reduction of RGGI allowances of 880,493 per year starting in 2022 and continuing to 2030. That reduction is nearly ten times more than the reductions from observed RGGI auction proceed investments.

Proponents of RGGI brag about the emission reductions observed and the value of auction proceed investments but do not appear aware of a looming problem. NYSERDA has not focused its RGGI proceed investments on emission reductions. This has not been a problem to this point but that strategy is about to hit a wall. The RGGI-affected sources have been running and emitting more the last two years because the State shut down 2,000 MW of zero-emissions nuclear generating capacity. RGGI auction proceeds are being used to host many programs that do not reduce RGGI source emissions. I expect that the Climate Act Scoping Plan to make the New York electric system zero-emissions by 2040 will include even more stringent emission limits. The question is where will the emission reductions come from and what happens when the emissions are greater than the targets.

Agricultural and Farmland Viability and the Climate Act

This post highlights recently signed legislation and an announcement by Governor Hochul that provides further proof that when the government says we are here to help it is likely a day late and a dollar short.

New York is a day late to this. In a recent post describing the Climate Action Council's transition plan approach I explained that there are already serious land use issues because there is no utility-scale solar implementation plan in place. Because there is no policy regarding utility-scale solar siting requirements relative to prime farmland the developers are thumbing their noses at the Department of Agriculture and Markets. The Department has a policy in place to protect prime farmland but developers claim that there is "no statutory or regulatory support" for the policy so it can be ignored.

This post described two initiatives intended to protect agricultural interests that are a dollar short. On December 6, 2022 Senate bill (S8889A) to create the Agricultural and Farmland Viability Protection Fund was signed. It will bolster efforts to protect agricultural land from being permanently removed from farming to make way for solar development. The primary intent of the legislation is to re-direct penalty funds for projects on active farmland from the State's General Fund into the new Agricultural and Farmland Viability Protection Fund for state and local farmland protection programs. That is good but it does not address utility-scale solar. On December 12, 2022 Governor Hochul announced that "a special working group of state agencies and agricultural community stakeholders will collaborate to support New York farmers and help boost the agricultural industry". My problem with this initiative is that the NY-Sun program for distributed solar projects already mandates responsible solar siting guidelines. This working group will waste time when all they need to do is mandate the same farmland protection criteria contained in the existing Public Service Commission distributed solar Roadmap for all projects.

Lastly. my holiday greetings to all! When I am not writing about environmental policy I play with trains.