New York State’s Climate Action Plan

Ambitious, Forward Thinking, and Visionary are terms that some will use for New York State’s Climate Action Council’s Draft Scoping Plan; Unworkable, Unrealistic, Light on Details, also work.

NYS came out with its plan, the Climate Action Council Draft Scoping Plan **(1)**, at the end of last year. The report is heavy on goals, but light on how to achieve those goals. Under the section for power on page **37** it calls for a moratorium on new fossil fuel infrastructure and a retirement of existing fossil fuel infrastructure while also arguing against nuclear, hydrogen and biofuels. The only power generation acceptable under this plan is solar, wind, hydro, and undiscovered, undefined new technologies. On the same page the state calls for transition plans that respect local wisdoms, cultures and traditions. These two goals are in conflict.

New York State uses 143 Terawatt hours of electricity a year.; one Terawatt hour is a million Megawatt hours used continuously for an hour. The state also uses 47 Billion cubic feet of natural gas, 126.5 million barrels of gasoline, and 57.4 million barrels of heating oil, some of that gas and oil goes to generate power, but most is for heating homes and powering transportation. This plan barely touches the electricity needs we have now without replacing the natural gas, gasoline and heating oil. Right now, the state gets almost all of its electricity from natural gas, 59.5 TWh, nuclear 40.8 TWh, and hydro, 24.2, TWh; keep in mind that the state has been closing its nuclear plants, filling that power deficit with out of state gas powerplants. The vast majority of hydro power comes from one source, Niagara Falls. **(2)**

The problem with solar and wind is they are intermittent and production varies greatly depending on the time of year. A utility scale solar array may be rated for 200 Megawatts. That’s full sun, long daylight days. In January, these arrays will produce their least amount of power, close to zero if they are covered in snow. They produce about 20 percent of their rated capacity. Some will argue batteries will fill that gap, but something needs to fill those batteries with power and at a full charge they only supply between four and eight hours of power. Our nights are longer than that in the winter. This plan is calling for installed solar of 60 Gigawatts, or 60,000 Megawatts, of utility scale solar by 2050. (1, Pg. 74) That’s 1.5 million acres to generate the power the state is calling for.

As solar companies apply for state money to build utility scale solar, one thing is clear, these arrays will cover hundreds of thousands of acres of active farm land. Why? The land is cleared, mostly flat, easily accessible and many times, near high tension powerlines. New York is a national leader in agriculture and this draft plan threatens to swamp that local tradition under utility scale solar. These are not the 25, 50 or even 100 acre arrays you can see dotting the countryside, but 1000, 2000, 3000 acre arrays.

The report calls for upgrades in the grid, something you’d think NYSEG and the other power delivery companies would have been doing all along with the delivery charges on your bill, but the upgrades being called for here will either outpace those charges or will mean rapid increases in your bill. The powerlines on your street simply can’t handle the load if every house suddenly has an electric car and electric heat. Add to that, power use has held steady because of efficiency, but most of that low hanging fruit has been picked. With that gone, use will go up.

If the state is serious about climate change, the only path forward that doesn’t cover all of Upstate in steel and glass, is nuclear. Offshore wind will fill some gaps as it can be closer to the end users so you have less power loss in transmission and yes, solar can play a role. However, this singular approach with wind and solar will not cover our energy use today, no matter tomorrow. Imagine every house switching to heat pumps as suggested for the City of Ithaca, and everyone turning to electric cars. Both may be more efficient, but they are still large energy draws. Put this plan in place and it’s hard to see any industrial manufacturers choosing to set up shop in NY.

The report clocks in at 331 pages with another couple hundred pages of appendices. The state knows most people will not read though a book to see how this will impact them personally. It’s a way of making information public while not expecting input from the public. I hope you’ll prove the state wrong. The comment period is now open. Please go to the website and make your voice heard.

1. <https://climate.ny.gov/Our-Climate-Act/Draft-Scoping-Plan>
2. <https://www.energy.gov/sites/prod/files/2016/09/f33/NY_Energy%20Sector%20Risk%20Profile_0.pdf>