

DAILY NEWS

OPINION

To power NYC in an era of climate change, look to nuclear

By Leonard Rodberg

September 26, 2021

Sunday is the end of Climate Week, which is why many are focusing more than usual on the damage climate change is causing in the New York region.

Unfortunately, in its woefully incomplete, overly ideological steps to modernize New York's energy mix to limit the greenhouse gases that are responsible for global warming, the state is asking for more trouble.

The state [intends](#) that, by 2040, no greenhouse gases will be emitted in generating electricity. Oil- and natural-gas-burning electric power plants will be replaced by renewable wind and solar energy installations.

But can wind and solar really be relied upon to keep the lights on in New York City? The short answer is no.

In the state's [vision](#) of our decarbonized future, the largest source of electricity, by far, will be [offshore wind](#) — thousands of turbines placed on the ocean floor south of Long Island.

New York's electric system is a "[tale of two grids](#)." One is upstate, based on water power on the Niagara and St. Lawrence Rivers, nuclear plants on Lake Ontario, and solar and wind across the area. Downstate, with little open space, we depend mostly on fossil fuel plants on the East River and in the Lower Hudson Valley.

The Indian Point nuclear plant in Westchester County was supplying a quarter of the downstate region's electricity and nearly all its clean, carbon-free power, but this past April, responding to environmentalists' exaggerated concerns over nuclear energy as well as gas-industry lobbyists pushing to build new plants, then-Gov. Andrew Cuomo [shut](#) down Indian Point.

Electric transmission between upstate and downstate is limited, and communities along the path of power lines vigorously resist their expansion. As part of Climate Week, Gov. Hochul celebrated the launch of several new transmission projects, using underground and underwater cables to bring upstate solar and wind and Canadian hydropower to the downstate region.

However, the downstate region will still be pretty much on its own. It will have to generate most of its own power, just as it does now.

Under the state's [plan](#), by 2040 the gas- and oil-burning plants will be replaced by offshore wind turbines supplying as much as 80% of the electricity we in the downstate area use. But wind power is full of contradictions. Sometimes there is too little; for long periods, often lasting weeks, insufficient wind blows. Texas, which installed more wind power than any other state, saw its electric grid [nearly collapse](#) when there wasn't enough wind, and its massive wind system was unable to fill in when the gas lines froze. (Readers will remember how Ted Cruz escaped to sunny Cancun as Texans shivered.)

Wind turbines off New York's coast will sometimes encounter these doldrums, but they will also lie directly in the path of storms coming north from the Caribbean. Turbines automatically [shut down](#) in heavy winds to avoid damage to their blades and generators. There could be several days in a row when substantial numbers of these turbines are not operating at all. What will happen to New York City and the rest of the downstate region when much of its electricity shuts down, even temporarily?

Of even greater concern is whether the turbines will survive these storms, which are expected to become more frequent and more intense over the coming decades. Turbines [cannot](#) withstand winds greater than those in a Category 3 hurricane. Superstorm Sandy was a Category 3 storm until it lost some of its intensity as it approached the city. With "100-year" storms now occurring on a regular basis, the state cannot rely on such a fragile source of power for its survival. Puerto Rico's wind turbines (and solar panels) were destroyed when struck by Hurricane Maria, a Category 5 storm, in 2017.

The New York Independent System Operator, NYISO, which is responsible for the state's electric grid, has already [declared](#) that a plan which depends upon wind and solar alone will not ensure reliable access to electricity. There are simply too many periods when these sources will not generate enough power. What will take their place?

Under Cuomo, the state refused to consider nuclear energy — an emission-free source that, for decades, has been providing nearly a third of the state's electricity. With Hochul in charge, here's hoping we make a fresh start toward a system that will actually work.

Nuclear plants are capable of supplying vast amounts of power, regardless of the weather. In fact, before they were shut down, Indian Point's two reactors [generated](#) over twice as much electricity as is supplied by all the wind and solar in the entire state. And, contrary to what many people believe, nuclear energy is [safer](#) than any other form of energy, and there are ready [solutions](#) for handling the radioactive waste. New nuclear [designs](#), including small modular reactors, will be even safer than existing plants and can yield far less waste. Compared to widely-dispersed wind turbines and solar panels, nuclear plants avoid large-scale, disruptive [land use](#) — a typical plant occupies less than one-half square mile — and they can run 24/7, shutting down only a few days every year or two for refueling.

New York needs a carbon-free energy system it can count on. A reliable, cost-effective option exists in nuclear power. It should be the major player in keeping our city warm in winter, cool in summer, and always brightly lit.

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