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NYC Is More Addicted To Fossil Fuels Than Ever. Now It May Make Solar Harder To Build.

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Still traumatized by 2012's deadly Superstorm Sandy, New York City has in recent years sued oil giants, divested its pension funds of coal stocks, and outlined lofty plans to protect the coastal metropolis from <u>rising seas and extreme</u> weather.

Yet this year the nation's largest city became more dependent on fossil fuels for its electricity as the nuclear plant that provided most of its zero-carbon electricity shut down and a plan to build a transmission line to carry hydropower down to the Hudson River from dams in Canada, first proposed in 2008, continued to flounder.

With limited space to build renewables and political power over its own infrastructure, glazing rooftops across the five boroughs with solar panels is widely seen as the easiest and most affordable way to generate renewable power within city

limits — and a source of jobs and training for an industry set for exponential growth if the U.S. fulfills its climate goals.

But two looming policy changes threaten to make rooftop solar harder and more expensive to build.

The state program that financed solar projects on the roofs of some of the poorest and most pollution-plagued New Yorkers is poised to run out of money as early as the end of summer, in part because a loophole allowed fossil fuel infrastructure to use up a giant chunk of the funding.

And the city's fire department advanced new codes that could significantly shrink the amount of roof space available for solar equipment and create costly new requirements for building owners looking to add panels.

"There's no pot at the end of the rainbow for people building and installing solar in New York City," said Shyam Mehta, the executive director of the New York Solar Energy Industries Association. "It's very difficult already. These policy issues make it more so."

Fossil Fuels Drink Solar's Milkshake

New York state created its community solar program in 2015 to subsidize the construction of panels to which renters, barred from building atop roofs they don't own, could subscribe and lower their bills. It took a few years to get off the ground in New York City and its northern suburb of

Westchester County, the area served by the private utility monopoly Consolidated Edison. In 2018, the program produced 3 megawatts of panels within the ConEd service area.



A year later, that number swelled more than sevenfold to 22 megawatts.

In 2020, however, that number soared to 89 megawatts, making community solar by far the fastest-growing segment of the city's solar sector.

For residents of New York City's sprawling public housing complexes, the program brought hope to places that most often offer examples of what happens when a super-rich metropolis fails to protect its poorest residents: Mold and pest infestations, lead-poisoned babies, grandparents left to freeze in winter without heat and roast in summer without air

conditioning.

In the meantime, the program has created nearly two dozen temporary jobs, with the majority of workers finding work in solar after installations were completed.

Lugging cinder blocks across the roof of a public housing development in south Brooklyn in March, Sarah Bellow, a New York City Housing Authority (NYCHA) resident who lost her job during the pandemic, said getting hired to install solar panels offered reprieve from the "mental effect of not working."

"I love it," Bellow told NY1 of the job. "I love every aspect of it."

Kelvin Casimiro, a 22-year-old NYCHA resident, similarly struggled to find work after he was laid off last year until a nonprofit working with the community solar program recruited him to build panels atop the Queensbridge Houses, the largest public housing complex in North America.

"I have applied for solar jobs before but have not received any positive answers because I had no prior experience in solar installations," Casimiro said in an official NYCHA
newsletter last month. "It is a great opportunity, because solar jobs are on the rise. Everyone is interested."

Yet as the solar projects ramped up, a loophole allowed natural gas-fired fuel cells to eat up more than 160 megawatts' worth of funding in the community solar

program. By the time state regulators closed the loophole in 2019, the fossil fuel equipment used up about half the funding available for the New York City service area.

Most solar projects will become uneconomically viable overnight. Shyam Mehta, New York Solar Energy Industries Association

In March, the city government, NYCHA, and a handful of solar nonprofits filed a petition with the state Public Service Commission requesting the state extend the program, which was set to run out of funding. At the very least, they asked that the state replace the funding the fossil fuel projects used up so they could go to solar projects instead. Roughly 40 megawatts of funding remain in the program, said Mehta, who estimated those will run out in, at most, three months.

Without an extension, Mehta said "most solar projects will become uneconomically viable overnight."

The commission said it was "reviewing all options given the concerns raised by the industry, and we are carefully considering the comments submitted in the community solar program." The body meets once per month, meaning it likely has no more than two sessions to address the issue before the program suffers a funding shortfall.

In a statement, Mayor Bill de Blasio's office said it was urging the commission to expand the program "given the acute need to transition away from fossil fuels."

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While advocates and solar installers wait nervously, analysts say the state is likely to keep the program going.

"Speculatively, I would not be surprised if they extend it because it's clearly been clearly effective," said Pol Lezcano, a solar analyst at the energy consultancy BloombergNEF.

Firefighters Propose 'A Hard Pill To Swallow'

The New York City Fire Department's <u>proposed new codes</u> could affect virtually all new rooftop solar projects in the city.

The department called on the city to revise the fire code to leave six-feet-wide openings around roof drains and on the perimeters of smaller buildings, and make expensive upgrades to parapet walls.

The most challenging measure proposed in the codes was a requirement for building owners to keep 30% of the rooftop facing the rear or any side of the building with windows completely clear of any panels so firefighters can easily traverse the space. Doing so, the Solar Energy Industries Association calculated, would reduce the available area for panels by roughly 40%, and in some cases more.

The proposed revisions also include mandates to reinforce parapets on buildings, a requirement solar installers said

could make rooftop panels even more expensive.

"It's well understood that New York City's fire code, as it exists right now, already places more restrictions on rooftop solar construction than any other fire code in the nation," Mehta said. "Without demonstrating the necessity of these restrictions for firefighters or public safety, it's a really hard pill to swallow."

In an email to HuffPost, the fire department said it planned to withdraw the 30% proposal and limit "its perimeter access proposal to newly-constructed buildings" over the solar industry's concerns.

"The Department will continue to work with the Mayor's Office of Climate and Sustainability to address any concerns expressed by clean energy stakeholders," deputy commissioner Frank Dwyer, the spokesman, said.



Lezcano said the existing fire code has "prevented a lot of

installers from even looking at the city as a potential new market."

"Unless you're a city installer and you're able to afford the time to navigate the bureaucracy and administrative permitting, there's very little reason for you to be in the city," he said. "I know of multiple installers who have decided not to expand to New York City because of all the additional work it would require in terms of having people with boots on the ground just to deal with the regulatory aspects."

The State vs. The City

New York City's efforts to curb its greenhouse gas emissions have long been dogged by the state's unwillingness or inability to deliver on them.

The city could not, for example, enact new congestion pricing tolls to limit vehicle traffic into Manhattan without legislation passed by the state. Any changes and investments in the subway and system most New Yorkers rely on must also run through Albany, since the Metropolitan Transportation Authority is under state control.

Even the city's landmark 2019 climate law — a mandate for big buildings, the largest energy users in the five boroughs, to install energy efficiency retrofits — has faced pushback from the state, as Gov. Andrew Cuomo (D) proposed new carve-outs for landlords that <u>critics say</u> would defang the legislation.

New York state officials say they want the state to rapidly eliminate carbon from its electricity grid. But as the state charges ahead with implementing its 100% by 2040 clean power law, some fear its eponymous city could become an afterthought. That's because the state can largely hit some of its early renewable electricity targets with big solar farms in the state's sparsely populated northern regions, where open space and looser regulations make energy development cheaper.

Two projects in or near the city could balance that regional disparity. The first, a <u>proposal</u> to close the notorious jail on Rikers Island and replace it with solar panels and batteries, could create a central hub for some clean electricity production, conveniently near the 500-acre electrical utility complex in northwest Queens. The second, already underway, is an array of offshore wind turbines expected to come online off the coast of Long Island and New Jersey sometime in the next three to four years.

In the meantime, however, a different proposal has consumed the attention of pro-renewable lawmakers and environmentalists in the city: a plan to build new gas-fired generators in Queens and Brooklyn.

"The city has to come up with a plan to help us mitigate the situation," said Charles Callaway, the director of organizing at We Act for Environmental Justice, a Harlem-based advocacy group. "We can help our community put solar on

top of buildings in a way that we can reduce the amount of emissions and continue to protect firemen."

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