

Reducing greenhouse gas emissions from NYC's buildings

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In most of the United States, a majority of greenhouse gas emissions come from transportation. In New York City, most of our emissions [come from buildings](#). This is because most of New York City's transportation is either by mass transit or on foot. In the rest of the country, most transport is by single passenger vehicles. The fact is, New

York City is the most energy-efficient place in America, emitting fewer greenhouse gasses per capita than other places. But in 2019, our City Council decided we could do better; they passed Local Law 97 (LL97), which aims to reduce greenhouse gas emissions from large buildings. According to the [New York State Energy Research and Development Authority's](#) (NYSERDA's) website:

"...compliance begins in 2024, but implementing energy management strategies for...multifamily properties doesn't happen overnight, so the time to plan is now. It's a good time to lay the groundwork for making comprehensive energy-saving upgrades or establishing on-going energy management strategies... LL97 is part of New York City's Climate legislation passed in 2019, a group of local laws aimed at mitigating the effects of greenhouse gas emissions from buildings. LL97 establishes emissions regulations on buildings over 25,000 sq. ft...."

Local Law 97 is really where climate symbolism meets real estate reality. A city with over 60,000 homeless people is not about to shut down dwellings. A city struggling to regain office building occupancy after COVID-19 does not want [office buildings](#) to go bankrupt. Although energy efficiency and renewable energy can save building operation and maintenance expenses, building owners must first generate the capital to invest in new equipment. Once installed, they must then train their staff to operate technologies that may be new to them.

The statute gave buildings of over 25,000 feet a set of gradual milestones to meet, increasing stringency from 2024 to 2030 and then again until mid-century. In 2030, buildings must reduce their emissions by 40% from a baseline set in 2005, and by 2050, the reductions must reach 80% of the 2005 baseline. Back in 2019, 2030 seemed distant, and even 2024 felt like the future. But as those deadlines draw closer, the complexity of decarbonization is becoming clearer.

Last week, Jane Margolies of the [New York Times](#) reported that:

"Worried about higher temperatures, more [frequent and intense rainfall](#) and rising seas that are nibbling away at New York's coastal edges, the City Council enacted [Local Law 97](#) in 2019 as part of a pioneering legislative package aimed at reducing the greenhouse gas emissions that are causing climate change... Now, with just 16 months until the deadline to meet the first thresholds—and with the threat of fines that could climb to millions of dollars a year for buildings that do not—landlords are on high alert."

The enforcement of this new law is critically important but must be undertaken with care and flexibility. New York's buildings are highly regulated. In fact, the city has a [separate court](#) that just addresses civil housing issues. New York City has building codes, zoning rules, historic preservation rules, health codes, energy codes, and now a decarbonization law. A city as crowded as ours needs laws to govern our complex and interconnected built environment. To quote the songwriter Paul Simon, in New York: "one man's ceiling is another man's floor." Scofflaws and criminals should be punished, but good-faith efforts at compliance need to be considered, along with the organizational capacity of the building's owners to understand and comply with new rules. Some buildings are owned by large corporations, and some are run by families, co-op boards, and mom and pop small investors. As [Margolies](#) reports:

"Real estate companies with large portfolios—and often staff devoted to sustainability initiatives—have generally been getting their carbon act together, and many are on track to avoid crushing penalties in the near term. But mom-and-pop companies that own older buildings that still have oil or gas furnaces in their basements, and the boards running the city's residential co-ops and condos, have their backs against the wall. Some are still trying to figure out what they need to do and how they'll pay for capital projects they never anticipated."

The legitimacy of the new law requires that the city avoid inflexible, one-size-fits-all enforcement. It is also important that the city government demonstrate the flexibility needed to reward rather than punish innovations in building design. Margolis' story cites the example of the Durst's landmark green building at One Bryant Park. The building is 12 years old and is, in many ways, ahead of its time, but it was not built to meet Local Law 97's standards. Its developer expects to absorb a large annual fine due to non-compliance with the new law. I am certain that as enforcement of the law is applied to the incredible diversity of New York's building stock, we will see additional examples like One Bryant Park. Rather than assess penalties, the city and building owners should get together and develop compliance plans that allocate penalty funds to investments that enable the buildings to meet decarbonization goals.

The law mandated the creation of a new Office of Building Energy and Emissions Performance within the City's Department of Buildings. In late February 2022, Samar Khurshid wrote a piece in the Gotham Gazette asking, "Will New York City be Ready to Implement Landmark Emissions Law?" He remarked on Mayor Adams' concern about the cost of compliance and his mix of endorsement and opposition to the law. He also [reported](#) that:

"The Office of Building Energy and Emissions Performance currently has six full-time staff, a number that remained unchanged in Adams' recent preliminary budget proposal for the next fiscal year beginning July 1, raising concerns among advocates that it may not have enough resources to carry out the herculean task ahead of it. The mayor's office, however, acknowledged that those staffing and funding needs will likely grow over time to effectively implement the law."

My view is that a massive effort must be undertaken to build the organizational capacity needed to make our buildings more energy efficient and carbon free. We needed to start building that capacity

yesterday. Energy auditors must be hired by city government directly and by contract along with engineers, construction and installation contractors, and architects capable of retrofitting building heating, lighting, insulation, and water heating and air conditioning systems. The organization overseeing this effort will need hundreds of staff either hired by the city or under contract to the [city](#). This is a complex management task. Federal climate and infrastructure funds should be sought to subsidize the capital and management costs. Especially for mom-and-pop landlords. A low interest loan program should be created for buildings needing capital to comply with the law. Many of these pieces are under development, but we should use the 2024 and 2030 deadlines to create a sense of urgency behind these tasks. This will be a huge job, and a "business-as-usual approach" will simply not suffice.

This is a critical moment in the battle to control greenhouse gas emissions. All the posturing, pontificating, and punditry produced at COP27 are far less important than the demonstration proof of practical [decarbonization](#) now underway in New York City. You've heard the song: "If you can make it here you can make it anywhere." These tasks, these investments, and the seriousness and flexibility of enforcement are central to institutionalizing the difficult, on-the-ground work of decarbonization. This is a battle that will only be fought and won building by building and block by block throughout the five boroughs.

At the same time, we will also need to start working on the smaller buildings that are under 25,000 square feet. Most of the land in New York City sits under single family homes, while most of the people in New York live in apartment buildings. Outside of Manhattan, decarbonization will require a totally different approach. We will need subsidies for household solar arrays, heat pumps, weatherization, and incentives for energy efficiency and decarbonization. These efforts and the tough work of Local Law 97 are not mutually exclusive but should be mutually reinforcing.

New York City could be on the forefront of retrofitting old building stock for a low carbon economy. We should be a model for cities all over the world. If we are successful, we will reduce both pollution and the cost of energy. It is a critical step on the path to an environmentally sustainable New York City.

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