Expanding Micromobility Across All Five Boroughs

To make further headway in reducing NYC's carbon footprint, much more progress is needed to lower emissions from transportation—New York's second-largest source after buildings. A faster citywide expansion of green micromobility options can help achieve the city's ambitious climate goals while meeting the changing transit needs of the postpandemic city.

by John Surico

New York City is making strides in combating the climate crisis, from passing Local Law 97, which mandates that bigger properties reduce greenhouse gas emissions, to committing to expand solar power generation to 1,000 megawatts by 2030. But to achieve further progress, the city will have to make much more headway in reducing transportation emissions—New York’s second-largest source of carbon behind buildings. In fact, transportation’s share of all emissions has grown over the past two decades, its total declining much more slowly than those from buildings or waste. Car ownership has spiked, traffic has worsened, and although it’s slowly returning, subway ridership is down about 30 percent from 2019 levels, with no clear path back.

Fortunately, New York City has a major untapped opportunity to drive down emissions while boosting economic opportunity: expanding shared micromobility options citywide. The growth of cycling and emergence of affordable electrified vehicles—from standard and cargo bikes to electric scooters and mopeds to three-wheeled and adaptive bikes—are offering more and more New Yorkers viable alternatives to private cars. Freed of congestion and parking headaches, these modes are replacing one-third or more of private car trips while better connecting people to jobs and services. Crucially, studies show these modes also help expand the reach of existing public transit hubs—a welcome boost at a time when the MTA's ridership rebound has stagnated.

Micromobility is also the mode best positioned to serve the shifting needs of New Yorkers in a post-pandemic city. With hybrid work here to stay, more New Yorkers are spending their time and money locally. But the city's century-old radial transit network—built for people to get in and out of Manhattan’s central business district—isn’t designed for a city of neighborhoods and nodes. Creating a stronger live-work environment will require more options for city dwellers to explore their own neighborhoods, visit others nearby, and access commercial corridors and open spaces. Micromobility options make these
shorter trips more appealing while offering practical advantages over private cars—not least of which is a major reduction in greenhouse gas emissions.

The city has the tools to make this a reality. At rush hour, Manhattan’s 1st Avenue now sees almost as many bikes and scooters as it does cars. Citi Bike is seeing nearly 125,000 rides a day. And the East Bronx e-scooter share pilot is a smashing success: more than 1.3 million rides were taken in a year, overwhelmingly by people of color earning less than $50,000 annually. Subway stations were cited as one of the most common destinations.

But New York City is falling behind. Cities such as Madrid and London are rolling out smart regulations for citywide e-scooter networks, while New York is confined to a single pilot program. In Paris, it’s impossible to go an arrondissement without spotting dozens of public, curbside secure bike parking stations—by comparison, New York City has just a handful. And while Citi Bike has become a vital fixture of the city’s transit landscape, it celebrated its ten-year anniversary this month in only half of the city.

These innovations, proven successful around the globe, are not reaching the less transit-rich neighborhoods that need them most, areas like Laurelton, Cambria Heights, South Richmond Hill, Canarsie, College Point, and Throgs Neck where access to jobs is restricted by challenging commutes, local commercial corridors are still struggling to rebound from the depths of the pandemic, and car dependency is high. To help stem the tide of climate change while seizing this moment for greater local economic vibrancy in the wake of the pandemic, New York City needs to go from laggard to leader in urban micromobility.

Here’s how it can start:

RAPIDLY EXPAND MICROMOBILITY SYSTEMS TO OFFER MORE OPTIONS TO RIDERS.

With 30,000 bikes at 1,800 stations, Citi Bike is now the most extensive public bike-share system outside of China. The mode has introduced a new generation of New Yorkers to cycling, with notable rates among women. Reduced-fare members—including public housing residents and SNAP recipients—made up 12.5 percent of all riders during a record-breaking week, cycling 77 percent more on average than regular-fare members. The e-bike option is ridden three times more frequently than the classic bike, which itself is hired an average of 10 to 15 times per day.

Still, the city’s most successful micromobility program is limited in scope. The docks are in just over half of the city’s 51 Council districts, most of which are already well-connected to transit and lean wealthier. Citi Bike doesn’t exist at all on Staten Island, in the north and east Bronx, or in the southern and eastern portions of Brooklyn and Queens. In effect, more than 4 million New Yorkers are effectively cut off from them.

This was no accident. The business model of Citi Bike, which is owned by Lyft, needs high utilization rates to turn a profit. “It’s hard to make money in a low-density area with less transit, unfortunately,” one micromobility executive told me. “And then you have communities who might be less willing, and things just slow down.”

Citi Bike’s measured expansion outward from Manhattan made sense for the New York City of the past decade. But New Yorkers cannot wait another decade for Citi Bike to reach all five boroughs. This year, docks will arrive in eager neighborhoods such as Jackson Heights and Corona, but there are no expansion plans in place past 2024. To help balance the need for financial sustainability with the demand for equitable access, the city should step in, as other global capitals have done, to ensure that every New Yorker lives within walking distance of a Citi Bike dock in the next three to five years.

New York is also the biggest city in the United States without a citywide escooter program. In Los Angeles, you can travel over 20 miles from the Venice boardwalk to Highland Park on one, and users reportedly took 44 percent fewer car trips as a result. Meanwhile, even as personal e-scooters have skyrocketed in usage, shared e-scooters from Lime, Veo, and Bird in New York are relegated to a slice of the Bronx. Although legal in boroughs outside of Manhattan since 2020, there are only 6,000 in circulation, while Washington, DC—with less than an eighth of New York’s population—is on its way to hosting 20,000.
New York should also get over its refusal to blend service areas: in other cities, public bikeshare is available steps away from an e-scooter.

It’s understandable that New York officials took a cautious approach to permitting e-scooters, after issues of safety and sidewalk clutter made headlines in other cities. But that was the prudent response in 2018, not 2023. The goal now should be to build rapidly on the success of the East Bronx pilot, with benchmarks for expansion to create five-borough service in the next two years.

The city can help expand other micromobility and last-mile transit options, too. Revel’s lightning blue electric mopeds still don’t reach most New Yorkers. The number of licensed commuter (or ‘dollar’) vans plunged 86 percent since 2019 due to the pandemic and high regulatory and insurance fees, threatening a vital link to public transit for thousands of mostly low-income commuters. While recent state funding for the start-up Dollaride shows promise, New York City should make expanding these options a key component of its post-pandemic recovery strategy.

**INSTALL SECURE PARKING AND ELECTRIC CHARGING TO CREATE THE INFRASTRUCTURE NEEDED FOR MORE RAPID ADOPTION.**

Expanding micromobility isn’t just about having more options. Micromobility users also need the infrastructure to support these new modes of transportation. Other cities are soaring past New York City in this regard. Take Pittsburgh, where residents can charge their e-scooter, pick up a bike, and find out when the next train or bus is coming at 50 micromobility hubs citywide. Or Paris, which is trying out 150 e-scooter charging docks with Acton that can be plugged into bus shelters or street lamps. Or Jersey City, where 30 secure bike parking pods are coming to residential neighborhoods in partnership with Oonee, a homegrown New York City start-up—ten times the deployment so far in New York City.

Barely any public charging stations exist in the boroughs outside Manhattan, and those that do are reserved for cars. The same can be said about secure parking, which is rare-to-nonexistent for bikes and scooters. Without space at home to safely charge and store, this infrastructure is shut off to huge swaths of the population and makes the expansion of public, shared systems more challenging.

Thankfully, there are some promising projects in the works. The city’s Department of Transportation is rolling out chargers curbside and to municipal parking lots. Revel has made charging easier as well. The new ’street deliveristas hubs’ will bring charging and rest stops to the city’s couriers. And a recent state law has pushed the MTA to consider pedestrian and bike access to its bridges, tunnels, and transit stations, which includes parking.

But progress so far is piecemeal. Even as EV adoption spikes, charging stations are still disproportionately located in wealthier neighborhoods. A pilot this summer required Oonee to secure a cumbersome 29-day concession permit each time it piloted its ‘Mini’ pod on the street—and yet there’s still no word on what comes next. If New York City is to succeed in connecting more New Yorkers to transit while reducing demand for private car trips, policymakers should focus on creating the infrastructure needed for micromobility to go from pilot to scale.

**IMPLEMENT CREATIVE FINANCING MECHANISMS AND LEGISLATION TO INCENTIVIZE MICROMOBILITY EXPANSION.**

Scale and infrastructure come at a cost, and with an uncertain economic outlook, municipal resources are understandably stretched thin. The city’s sluggish progress toward meeting its legally mandated bus and bike lane goals is a telling reminder of that. So, to fully realize the potential of micromobility, the city will need to seek out new sources of revenue to get the job done.

Congestion pricing is the first obvious place to look. Critics pan the coming plan to charge drivers to enter Manhattan below 60th Street as a financial burden on outer-borough drivers. The revenue, which is estimated at $1 billion each year for the MTA, will go to transit upgrades system-wide. But New York can take a page from London’s playbook: the congestion...
charges there help fund Transport for London’s Santander Cycles bikeshare and e-scooter programs. The city should call on the MTA to dedicate a portion of revenue from congestion pricing to create micromobility charging and parking hubs at subway and rail stations in the boroughs outside Manhattan.

In San Diego, a slice of fees from its permanent outdoor dining program is allocated to widen sidewalks and bike lanes in underserved communities—an approach the New York City Council should consider as it prepares to vote on a new outdoor dining program this month. The city should also take a look at “parking benefit districts” or residential parking permits, common in many other large cities, which increase the supply of parking available to local residents while generating revenue that can be spent on micromobility improvements. And New York cannot afford to miss out on infrastructure funds flooding in from Washington that could be used to build out these low-carbon systems.

Finally, electrifying the last mile is also an urgent need amid a boom in home delivery. This summer, the city is piloting new last mile delivery hubs, where delivery giants like Amazon and FedEx can offload packages onto smaller vehicles, like cargo e-bikes and rickshaws, for the final leg. But right now, those trips are hindered by cargo bike width regulations at the state level. Albany needs to act for the city to innovate. And like London and Milan’s “low-emission zones,” the city should consider fees on polluting trucks to incentivize this shift and help pay for micromobility infrastructure.

New York City has a lot of work to do to reduce greenhouse gas emissions, while laying the groundwork for a more inclusive and equitable post-pandemic economy. Fortunately, a major expansion of micromobility options and infrastructure can tackle these urgent needs at the same time.

* The author advised the secure bike storage start-up Oonee on its Jersey City proposal.

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