Citywide Administrative Services

Dawn M. Pinnock
Commissioner

New York City Council Committee on Environmental Protection, Resiliency & Waterfronts

Testimony of Chief Decarbonization Officer & Deputy Commissioner of Energy Management Sana Barakat

March 1, 2024

Introduction

Good afternoon, Chair Gennaro and members of the committee. My name is Sana Barakat, and I am New York City's Chief Decarbonization Officer and the Deputy Commissioner of Energy Management at the Department of Citywide Administrative Services – commonly known as DCAS. I am joined today by Steven Caputo, Assistant Commissioner for Operations at DCAS Energy Management; Elijah Hutchinson, Executive Director of the Mayor's Office of Climate and Environmental Justice (MOCEJ); Lydia Wiener, Policy Advisor for Clean Energy at MOCEJ; and Carleen McLaughlin, Director of Legislative Affairs at the Department of Environmental Protection.

Thank you for the opportunity to testify on the City's efforts to install solar photovoltaic systems– commonly known as solar PV and battery storage capacity. Solar PV and battery storage are vital components in the City's efforts to move away from fossil fuel-generated electricity and we have made tremendous progress to increase solar and battery storage capacity in the City, both in the public and private spheres.

Ten years ago, in recognition that climate change represented the most pressing existential threat to New York City's quality of life, the City set a goal to reduce citywide greenhouse gas emissions by 80 percent by 2050 (80 x 50), and, at the time, became the largest city in the world to commit to that target. One of the major policies established by the Administration at that time to achieve the 80 x 50 goal was to expand solar capacity on municipal building rooftops to 100 megawatts (MW) by 2025.

Prior to setting the 100 MW target in 2014, the City had less than 1 MW of solar power installed on municipal buildings. Since then, we have grown our capacity exponentially and are now considered an industry leader. By 2022, we installed 16.7 MW of solar capacity, representing a nearly 40 percent increase from the prior two years. We have since expanded our solar capacity even further, by *another 44 percent.* To date, the City, led by DCAS, has installed over 24 MW of solar capacity across 155 municipal properties

in all five boroughs. Notably, of the 24 MW of solar currently installed, 55% of these systems are in State-designated disadvantaged communities (DACs).

We are continuing to add megawatts at a rapid scale. Since DCAS last testified before this committee in December, we installed another one and a half megawatts. Based on our current pipeline, budget, and staff capacity, we expect to more than double our current capacity to approximately 50 MW by 2025. If conditions remain the same, we expect to hit 70 MW by 2027 and 100 MW by 2030. These achievements were all made possible through the dogged commitment of DCAS and our partner agencies to identify all viable City properties for solar. We are using every tool at our disposal to install solar systems, including capital investments as well as power purchase agreements (PPAs). Our PPAs have allowed us to significantly increase the rate of our solar installations in a cost-effective manner.

We are also committed to being good stewards of our City-owned solar assets so that we can maximize system performance, greenhouse gas reduction and energy cost savings while ensuring the longevity of system lifespans. We currently have a solar operations and maintenance (O&M) contract with an M/WBE vendor to provide O&M services to a selection of sites with the highest operational and maintenance needs. We also recently released a solicitation for a comprehensive O&M contract to cover all City-owned solar installations to ensure the City's investments are operating at full capacity and peak performance. In other words, we're not just focused on solar energy now, but we're focused on protecting these investments into the future.

While the City's rapid scaling of solar capacity is nothing short of remarkable, we now know that 100 MW by 2025 is not feasible. I'd like to take the opportunity to explain some of the challenges we have faced and continue to face in our efforts to reach 100 MW of solar capacity.

- First, as I mentioned previously, when the prior Administration set the ambitious 100 MW by 2025 goal, neither city government nor the private sector had any significant experience with large-scale solar installation. There could be no "pilot" for such an undertaking. We jumped right in, and the City worked with the electrical utilities and established its solar installation program from the ground up.
- Procurement and contracting for solar at this scale did not have precedent and it has taken time to develop the necessary procurements.
- Just as we were starting to scale-up our program, COVID set the City's progress back by about two years, resulting in obstacles and delays that linger to this day, as we are still dealing with a constrained supply chain, as well as commodity and shipping cost increases, and shipping delays.
- It is challenging to find viable sites to install solar due to many municipal buildings needing roof repair or replacement and the limited space in our dense urban environment.
- We are in a competitive job market, and it is a challenge to recruit and retain staff to implement and maintain solar installations.
- And finally, as we all know, the City is facing extraordinary budget pressures that could hamper our progress in the coming years.

However, this Administration is working to overcome these challenges to continue the rapid growth of our solar program. This work includes:

- DCAS taking full advantage of our design-build authorization granted by the State in 2022. We are aggressively advancing design-build contracts under this authority and are on track to release DCAS' first design-build solicitation for rooftop solar installation this spring.
- Gaining access to a PPA issued by the New York Power Authority (NYPA) that will bring solar installations to over 60 City-owned buildings in Brooklyn and Queens, including schools and wastewater resource recovery facilities (WRRFs). This agreement will add over 30 MW of solar capacity. The solar installation on the Wards Island WRRF will be the largest solar installation on a wastewater treatment plant anywhere in the ***world***.
- The City of Yes for Carbon Neutrality zoning amendment which will significantly increase the available space for solar and battery storage in the city. I'd like to express my gratitude to the Council for passing this important reform.
- We are also working to expand and sustain a green workforce in the city, including using new energy-specific civil service titles, offering professional development courses in renewable energy, and partnering with schools to develop educational programming centered around solar PV systems installed on school roofs.
- Finally, the Administration released **PlaNYC: Getting Sustainability Done** and **PowerUp,** the City's Long-Term Energy Plan, which together lay out concrete steps the City will take to increase solar and battery storage in the City, including creating a plan to repair priority City building roofs and identifying and assessing sites for battery storage.

In addition to expanding our solar portfolio, we are also ramping up the City's battery storage capacity. Expanding that capacity is essential to ensuring the reliability and resilience of our grid as the City transitions away from fossil-fuels and increases its electricity use.

Last year, the New York Independent System Operator (NYISO) found that the New York City-area could face a grid reliability deficit as large as 446 MW beginning in summer 2025 due to a forecasted increase in peak energy demand and the unavailability of certain fossil-fuel generators.

To this end, DCAS and partner agencies have completed several battery storage installations and have even more in the pipeline. So far, the City has installed approximately 0.28 MW of battery storage on City properties, including four libraries, the Brooklyn Army Terminal, Red Hook Recreation Center, and six FDNY firehouses. Through our NYPA partnership, we have three large scale projects in development at NYC Department of Environmental Protection (DEP) facilities that will exponentially increase battery capacity on City property, adding approximately 19 MW of capacity: Spring Creek (5 MW), Wards Island (10 MW), and Cat-Del in Westchester (4 MW). Finally,

thanks to the passage of the City of Yes zoning amendment referenced earlier, we have five more megawatts worth of projects on school properties that can now move forward.

While we are ramping up battery storage on City property, the City is also committed to catalyzing development of citywide battery storage on both public and private property. DCAS recently released a Request for Information to private developers, seeking more information about their needs and what would enable them to develop more storage in New York City. The City is also participating in the review of the New York State Energy Research & Development Authority's (NYSERDA) energy storage roadmap, which if approved, will support a buildout of 4.7 gigawatts of storage deployments in the State.

Widening our lens beyond just City-owned property, our colleagues at the Mayor's Office for Climate and Environmental Justice – MOCEJ – are doing a tremendous amount of work to catalyze storage and solar capacity citywide. The City set a goal to install 500MW of battery storage capacity citywide by 2025, and we already have 448MW of solar installed citywide. The cost to install solar PV in New York City has decreased significantly in recent years, making it viable in more locations. MOCEJ has, and will continue to, advocate that incentives be tailored to accommodate New York City's unique, dense, urban environment and see that a fair share of state and federal funds supporting solar and storage development reach New Yorkers. For example, during the last legislative session, the City supported the state bill that would extend and expand the Solar and Storage Property Tax Abatement, which creates improved pathways for all New Yorkers to access the benefits of renewable energy. To keep pace with this increased funding, MOCEJ works closely with the Sustainable CUNY ombudsman program to ensure private developers have access to technical support throughout the permitting process.

I would like to turn now to the legislation being considered today.

Intro. No. 353 (CM Nurse) would require DCAS, in coordination with MOCEJ, to complete the installation of 100 megawatts of solar PV systems on the roofs of city-owned buildings by the end of 2025 and 150 megawatts on the roofs of city-owned buildings and other properties by the end of 2030. This bill would also prohibit the use of power purchase agreements (PPAs) in satisfying the solar PV system targets. The Administration supports the spirit of this bill and is committed to setting ambitious targets for solar PV installation on viable City buildings and other properties.

However, we want to work with the Council to establish mandates that are both ambitious and achievable. We also want to ensure that all tools remain available to us to deliver solar PV projects in as quick, efficient and cost-effective a manner as possible, including PPAs. PPAs are effective project delivery vehicles that have helped DCAS scale-up our solar installations. Losing the ability to use them to achieve our solar installation mandates would severely hamper our ability to meet the mandates in this bill.

Int. No. 354 (CM Nurse) would require DCAS, in coordination with MOCEJ, to develop a plan to achieve at least 300MW of storage on City-owned lots by the end of 2030 and 400MW by the end of 2035. Once again, the Administration supports the spirit of this bill and is committed to reaching ambitious levels of battery storage installation on viable City-owned property. However, the megawatt targets set in the bill are infeasible given how early we are in battery storage expansion citywide, and the physical and operational constraints with battery storage. We have a lot yet to learn and believe it would be premature to set a battery storage target at this early juncture.

Int. No. 129 (CM Brannan) would mandate that DCAS install all solar canopies and electric vehicle charging equipment at each city-controlled parking lot. We welcome a discussion on the parameters of a pilot program to determine if solar canopies might indeed be cost-effective. Today, the City has one solar canopy with charging in place. From a pilot we would seek to understand the relationship between the cost of a canopy, and the value to the city produced by such. Among other items, the cost of a canopy must consider total cost per canopy install, staff and time required per install, the required maintenance and repair work overhead, and the varying warranties and expected useful life for different parts of canopies that would impact costs.

Lastly, Int. No. 347 (CM Nurse) would exempt solar installations from any fees in connection with an application for a street crane permit for such installations. The Administration would like to discuss this bill with the Council further to better understand the intent. In general, the City has not seen any indication that crane fees are an impediment to the installation of solar PV systems on private property. Further, fees serve an important purpose for the City in ensuring it can recoup costs for its services, and the Administration would not want to set a precedent of waiving such fees.

We appreciate the support you have shown for our work, and we look forward to continuing our partnership with the Council in expanding the City's solar and battery storage capacity. I am happy to answer any questions the committee has.

JUMAANE D. WILLIAMS

STATEMENT OF PUBLIC ADVOCATE JUMAANE D. WILLIAMS TO THE NEW YORK CITY COUNCIL COMMITTEE ON ENVIRONMENTAL PROTECTION, RESILIENCY, AND WATERFRONTS MARCH 1ST, 2024

My name is Jumaane D. Williams, and I am the Public Advocate for the City of New York. I would like to thank Chair Gennaro and the Committee members for holding this hearing.

As the City of New York is working to comply with New York State's mandated climate goals, the city must become more creative to hit ambitious goals such as 70% of electricity be generated from renewable energy by 2030[1]. Recent reporting shows that New York State is having difficulty meeting this goal[2]. Furthermore, New York City has both internally set targets and legally mandated requirements. Both former Mayor De Blasio's office and Mayor Adam's office has set a goal of 1,000 MW of solar power in New York City by 2030[3]. Mayor Adams continues to advocate for this goal most recently in April 2023's *PlaNYC: Getting Sustainability Done* report[4]. Yet, the city is falling behind on its goal[5]. According to the Office of the New York City Comptroller, we have been trying since 2014 to expand solar energy usage, but as of 2022 we are only 43% of the way to our 2030 goal[6]. Outside of purely hitting the mandatory and self-set goals, we must invest in renewable energy development to reduce both air pollution and our greenhouse gas emissions.

To speed up the process the New York City Council last year passed "City of Yes for Carbon Neutrality". This legislation has removed restrictions that were previously placed on the solar panel and electric vehicle infrastructure zoning process. Now that preliminary issues have been addressed, the Council must continue to progress solar panel development across the City.

I want to thank my colleagues for introducing legislation today that addresses issues mentioned above, as well as exploring every available resource to meet the City's goals. Intro 129, Intro 353, and Intro 354 correctly recognizes the tremendous amount of city-owned or contracted properties under-utilized. The city needs to evaluate if city-owned buildings, parking lots, public schools and other public infrastructure can be retrofitted for energy storage systems and solar panels, and these introduced pieces of legislation will require such an evaluation and mandate utilization goals. Furthermore, we need to make the process of installing such

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[1] https://www.nysenate.gov/legislation/bills/2019/S6599

[2]https://www.politico.com/news/2024/02/07/new-york-energy-climate-goals-00139979#:~:text=State%20officials%20have%20recognized%20the,greenhouse%20gas%20emissions%20by%202050.

[3]https://www.nyc.gov/office-of-the-mayor/news/767-16/climate-week-solar-power-nyc-nearly-quadrupled-since-mayor-de-blasio-took-office-and

[4] https://climate.cityofnewyork.us/wp-content/uploads/2023/06/PlaNYC-2023-Full-Report.pdf

[5] https://gothamist.com/news/nyc-is-behind-in-meeting-its-solar-energy-goals-can-it-catch-up

[6] https://comptroller.nyc.gov/services/for-the-public/nyc-climate-dashboard/energy/

infrastructure as cheap and efficient as possible, and permit waivers for solar panel installation like Intro 347 is an excellent way to make solar panel installation more competitive. The legislation in front of this committee will improve the speed at which New York City can meet its climate goals.

Testimony of the United Federation of Teachers
before the
New York City Council Environmental Protection, Resiliency and Waterfronts Committee's Oversight Hearing on the Installation of Solar Photovoltaic Systems and Battery Storage Capacity

March 1, 2024

My name is Rich Mantell, and I'm the vice president of the United Federation of Teachers (UFT) and one of the coordinators of the Carbon Free and Healthy Schools campaign. On behalf of the union's more than 190,000 members, I would like to thank Chair Jim Gennaro and all the members of the City Council's Committee on Environmental Protection, Resiliency and Waterfronts for holding today's public hearing. We are thrilled to be here in support of Int. 353, sponsored by Council Member Nurse, Chair Gennaro, and Council Member De La Rosa, speaking about the installation of solar photovoltaic systems on city-owned property that will prioritize schools and other city-owned property in disadvantaged areas and bar the use of power purchase agreements (PPAs).

The UFT continues to work with the coalition of New York City unions, including 32BJ SEIU, DC37, CSA and the Building and Construction Trades Council, that together spearhead the Carbon Free and Healthy Schools campaign, as well as with local, state and federal lawmakers to push for New York City to create modern, healthy, zero-emissions and sustainable green schools. We can simultaneously improve working and learning conditions for educators and students alike, increase wages, create good union jobs and pathways for students to good union jobs and create hubs of energy and community resilience. We also work to create zero-emissions transportation and safe routes to schools and to institute the teaching of climate change, sustainability and environmental justice across the curriculum. We can prioritize disadvantaged, poor, low-income, frontline communities, communities of color and schools otherwise suffering the most cumulative and negative environmental and public health impacts by using funding already allocated for this work and pushing for much more. The Biden administration's $2 trillion infrastructure plan is one of the most ambitious federal efforts ever to tackle climate change, and we cannot forego the opportunity to use these federal funds to make all 1,750 city school buildings clean and green.

It is time to invest in the infrastructure of our city's schools. Public schools are among the worst climate polluters and largest emitters of greenhouse gases in the city. Most of our school buildings need basic repairs and upgrades to address issues ranging from antiquated heating and air-conditioning systems to deteriorating rooftops to outdated electrical grids. At least a quarter of New York City classrooms lack air conditioning entirely. At the same time, HVAC systems are contributing to extremely hot temperatures in school kitchens and creating unworkable and

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hazardous conditions for staff. By investing in school infrastructure, we can create tens of thousands of good union jobs while making schools healthier and safer, taking on climate change, and saving $8.25 billion — $600 million from this legislation alone — in energy expenditures over 30 years that can be reinvested in schools. We want to prioritize historically under-resourced communities of color, where students face the most acute educational and environmental challenges. Conducting deep retrofits and installing solar power and battery storage to meet the energy needs of all city public schools will create 45,000 union jobs — 1,500 from Int. 353 — including high-quality career pathways for women, justice-involved individuals, and members of frontline communities. With energy-efficient retrofits and renewable power that cut energy consumption by 50%, we can save more than 100,000 tons of carbon emissions every year — the equivalent of planting 400,000 trees or taking 20,000 cars off the road and a critical step to reaching the city's goal of an 80% reduction in carbon emissions by 2050.

Building net-zero carbon schools creates healthy learning and working environments for our students and teachers. P.S. 62, the Kathleen Grimm School for Leadership and Sustainability at Sandy Ground, the first net-zero energy school in New York City and one of the first in the nation, stands as a model for the kind of innovation and jobs that can be created by clean energy. The Kathleen Grimm School was union-built and has nearly 2,000 solar panels that generate enough electricity to power the school year-round. The school's architecture was designed to generate as much energy as it uses, including a green roof, underground geothermal well, rainwater retention tanks, greenhouse garden and other clean energy features.

Part of realizing the just transition and job-creation effects of this campaign is the proposed ban on the use of power purchase agreements, whereby a private-sector company owns the energy system installed on our public assets and is responsible for installation, operations and maintenance. Seventy-nine percent of projects that are currently in progress are being financed through PPAs, despite those agreements posing a myriad of equity, economic-development and workforce-development issues. Solar energy in public buildings financed through PPAs are not subject to project labor agreements (PLAs) and instead follow labor practices that are below high-quality job standards. PPAs do not maximize the potential savings from solar. Rather, they shift most of the cost savings that come from solar energy to private solar developers, thereby reducing the city's ability to reinvest in communities hit hardest by climate change. Rejecting PPAs for solar installation will ensure the city has more savings to be returned to public funds and low-income communities. Only by focusing on how we implement climate initiatives can we make progress on economic equity and focus resources on frontline and environmental justice communities.

To close, I want to share just a few of the tenets of our campaign that Mayor Adams affirmed as a candidate for office:

- Schools should be healthy and safe for students, staff and the community.
- Schools should be a model for carbon-free buildings with optimal energy efficiencies.
- Schools most in need of investment should be prioritized, including those with the most antiquated heating and cooling systems — particularly in Black and brown communities that have been historically underserved and poorly maintained.
- Schools should utilize rooftops to generate their own solar power.

- Schools should reinvest the cost savings from their own solar power into ongoing maintenance of the buildings and classroom instruction.
- Retrofitting schools for energy efficiency and solar power must create good union jobs for New York City communities.
- New York City should lead the way to create Carbon Free and Healthy Schools and green infrastructure to tackle the climate crisis.

This is a moment when we can go big — enlisting federal support and building on earlier work to put solar on some New York City schools — and implement energy-efficiency retrofits and solar power across our school buildings. Together, we can make New York City schools a model of green infrastructure, make schools healthier and safer for students and the school community, create good union jobs and save schools millions in energy costs.

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March 4, 2024

Testimony of WE ACT for Environmental Justice to the New York City Council Committee on Environmental Protection, Resiliency and Waterfronts on March 1, 2024 regarding Installation of Solar Photovoltaic Systems and Battery Storage Capacity.

Dear Chair James Gennaro and Committee on Environmental Protection, Resiliency and Waterfronts:

WE ACT for Environmental Justice, an organization based in Harlem, has been fighting environmental racism at the city, state, and federal levels for more than 30 years. We recognize and fight to remedy the negative cumulative impacts of unjust policies that have plagued communities of color for decades. WE ACT has been advocating for the rapid expansion of renewable energy sources within the city.

WE ACT supports both of Councilmember Sandy Nurse's bills: Int 0353-2024 – Installation of solar photovoltaic systems on city-owned property. and Int 0354-2024 – Utilizing city-owned lots for energy storage systems. We must do everything we can to curb citywide emissions because the climate crisis knows no boundaries and respects no socio-economic status. It is our collective responsibility to act decisively to mitigate its effects and transition to a renewable energy future. These bills mandate the city to lead by example in achieving that.

Environmental justice communities across New York City face disproportionate environmental challenges, and it is our moral imperative to address these disparities. To that end, we are glad to see language in Int 0353-2024 that requires the City to prioritize the installation of solar photovoltaic systems in public schools, city-owned properties, and structures located in disadvantaged communities.

Solar roofs support energy efficiency since photovoltaic panels absorb the radiation instead of the building while generating electricity, helping to reduce the energy load during times of high demand. Extreme heat events will become more frequent and severe, and to prevent blackouts and brownouts when people are trying to cool down in their homes, renewable energy generation must be more accessible in heat vulnerable neighborhoods.

While the City has previously outlined the target of 100 MW of solar pv energy systems to be installed across municipal buildings by 2025,Int

0353-2024 will ensure that this goal is not just a promise but a commitment to a cleaner, more resilient future.

We also support Int 0354-2024 that requires the City to identify much needed areas for energy storage systems. It is essential for us to focus on energy storage as we make the transition towards renewable energy. The City should prioritize the deployment of these energy storage systems in grid constraint or blackout prone neighborhoods.

We are in the midst of a worsening climate crisis and the City must do everything it can to lead by example by aggressively investing in emissions reductions, building electrification, and expanding solar on city-owned property; all with environmental and climate justice as the foundation of this work.

Lonnie J. Portis
NYC Policy and Advocacy Manager
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[redacted]

NEW YORK CITY
CENTRAL LABOR COUNCIL, AFL-CIO

President
VINCENT ALVAREZ
Secretary-Treasurer
JANELLA T. HINDS

Testimony of Vincent Alvarez
President, New York City Central Labor Council, AFL-CIO
before the
NYC Council Committee on Environmental Protection, Resiliency and Waterfronts
regarding
Support for Installation of Photovoltaic Systems
March 1, 2024

Good afternoon Chair Gennaro and members of the Council's Committee on Environmental Protection, Resiliency and Waterfronts. My name is Vincent Alvarez, and I am the President of the New York City Central Labor Council, AFL-CIO (NYCCLC). The NYCCLC, represents over 1 million workers across 300 affiliated unions and strongly supports Int. 353 which requires New York City to install solar photovoltaic systems on all city-owned property.

The overwhelming evidence is clear that earth will cross a critical threshold for global warming and climate scientists have made it clear that this decade, from 2020 to 2030, is critical to addressing climate change. NYC is particularly vulnerable to extreme storms, sea-level rise and flooding, intense heat, and corrosion, and evidence of this has already been experienced with superstorms such as Hurricane Sandy, extreme heat, and torrential rain and flooding. Particularly concerning is that low-income communities and communities of color remain vulnerable to shocks and stressors because of these extreme weather events. Not only have our members personally experienced these events, but working people continue to be at the front lines of the climate crisis. We no longer have the luxury of delaying our transition to a clean economy because these climate disasters have been followed by steep recovery costs. This is why NYC, as a leading global city, has the responsibility in leading the efforts to address climate change.

This is one of the reasons why we support Int. 353, which promises to rapidly scale up solar installation on public buildings to promote sustainability. Currently, buildings contribute nearly 80% of total greenhouse gas pollution in New York City. The Federal government has also provided additional funding such as the 2022 Inflation Reduction Act to assist in efforts to address climate change. Installing solar panels on public buildings and schools presents an incredible opportunity to transition our energy sources to renewable technologies such as solar power. This legislation will significantly reduce our carbon footprint and mitigate the adverse effects of fossil fuel pollution in our communities. Additionally, investing in solar installation on public buildings will produce major cost savings for the city. These savings can be reinvested into vital public services, such as education, healthcare, and infrastructure, benefiting all New Yorkers. Moreover, as the City transitions to a clean economy, this bill will not leave workers behind because it requires that the installation, maintenance, and operation of solar photovoltaic systems be deemed "public works" thereby ensuring there will be good high quality union jobs.

I would like to end by stating that the CLC and our affiliates welcome the opportunity to work with the Department of Citywide Administrative Services and the Mayor's Office of Climate and Environmental Justice. I encourage you to speak to us regularly so we may collaborate in transitioning to a green economy while ensuring that workers are an integral part of that transition.

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March 1, 2024

CHIP Testimony on Solar Panels and Battery Storage

Thank you for holding this hearing today. I am Adam Roberts, Policy Director for the Community Housing Improvement Program (CHIP). We represent New York's housing providers, including apartment building owners and managers.

We are strongly supportive of legislation to promote the installation of solar panels on existing buildings. Our members are already installing solar panels on apartment buildings throughout the city. However, too many of them face obstacles when seeking city approval to do so.

In particular, the Fire Code severely limits the ability to comprehensively cover a roof with solar panels. Without sufficient coverage, the high cost of installing solar panels can become prohibitive. Installing them is only a worthwhile endeavor if they can actually power an entire apartment building.

The City of Yes Carbon Neutrality Zoning Text Amendment does reduce the zoning obstacles to sufficiently covering a roof with solar panels. Yet, this text amendment will not remove the strict limits put in place by the fire code, meaning the city council must act. While it is not being heard at this hearing, Int. 73-2024 would remove many of these fire code restrictions.

Battery storage systems face similar roadblocks to solar panels. The City of Yes will reduce the zoning limitations of battery storage systems, but FDNY will still have significant leeway to block their installation.

We recognize that the severe limitations placed on solar panels and battery storage systems are well intentioned efforts to limit the risk of fires. Yet, even as these technologies have become much safer, the city continues to make their installation incredibly difficult.

Unless this problem is addressed, New York's apartment buildings will continue to be hampered in their efforts to comply with Local Law 97 and other sustainability legislation. The Council should do everything in its power to ensure compliance with its own laws is feasible.

Again, thank you for holding this hearing today.

Adam Roberts, Policy Director
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Testimony of Ben Dorman
The New York City Council
Committee on Environmental Protection, Resiliency, and Waterfronts
Re: T2024-0632, Installation of Solar Photovoltaic Systems and Battery Storage Capacity
March 1st, 2024

Honorable Members of the New York City Council,

My name is Ben Dorman and I am the Deputy Director of Climate Jobs New York, which directs the Carbon Free and Healthy Schools campaign. Our union coalition is made up of municipal public sector unions like UFT, DC37, and CSA as well as private sector unions like the Building and Construction Trades unions, 32BJ and NYSNA who live and work across the city. Every day these union members keep New York moving forward in schools and city buildings, and they know that we need to invest in improving those buildings *now*. They have also seen firsthand the effects of climate change worsen with superstorms like Hurricane Sandy, extreme heat, and wildfire smoke. If we continue to wait to act, the cost of recovering time and again will only worsen. Our coalition is committed to making sure we leave the planet a better place for the next generation and that we capitalize on the opportunity for federal and state funding incentives now. We urge you to support Council Member Nurse's NYC public solar power bill (T2024-0152).

This bill to rapidly scale up solar installation on public buildings is a big step to promote sustainability, create good jobs, and solidify the financial health of the city. Currently, buildings contribute nearly 80% of total greenhouse gas pollution in New York City.[1] Public buildings and schools represent a massive opportunity to transition

[1] (https://infohub.nyced.org/docs/default-source/default-document-library/sustainability-annual-report-2019-2020.pdf) p.14 /
https://www.nyc.gov/site/buildings/codes/sustainability.page

our energy sources to renewable technology like solar power. With this legislation, we can significantly reduce our carbon footprint and mitigate the adverse effects of fossil fuel pollution in our communities.

In addition, by enacting this legislation, the city can create family-sustaining jobs for workers right here in our city. To complete these solar installation projects, we will bring people into the renewable energy workforce of the future. In this way, we can transition to a green energy economy while uplifting communities most affected by the devastating impacts of climate change.

Investing in solar installation on public buildings will also produce major cost savings for the city. By reaching 100 megawatts of publicly owned solar alone, New York City can produce energy cost savings of over $12 million per year. Once 150 megawatts are up and running, the city could save $20,405,000 per year—more than $600 million over 30 years. Put simply, passing this legislation will pay for itself more than twice. These huge savings can be reinvested into vital public services, such as education, healthcare, and infrastructure, benefiting all New Yorkers.

By investing in our future, we can take a huge step towards a green transition and build a more sustainable, equitable, and resilient economic future for generations to come. There are far more details on the benefits of this legislation and on the ample funding sources available that you will hear more about now. We look forward to working with you to enact this vital legislation for the City.

Thank you for your time and consideration.

Ben Dorman
Deputy Director, Climate Jobs New York

Climate Jobs New York

Public Solar Power Bill Fact Sheet

LEGISLATION KEY POINTS

- 100 MW of solar on city-owned buildings by 2025, which aligns with Mayor Adams' administration priority
- 150 MW of solar on city-owned buildings by 2030
- Requires a plan to meet the 150 MW by 2030 goal be drafted by end of 2026
- Solar installations to be owned and maintained by NYC; all cost-savings realized

COST SAVINGS

- Meeting just the 100 MW goal alone could result in energy cost savings of $12,705,000[1] for NYC..
- Once fully implemented, 150 MW of rooftop solar on city-owned buildings could save the city $20,405,000
- Over 30 years, 150 MW of solar power capacity on city-owned buildings could save New York City over $600 million in energy cost savings. [2]

JOB CREATION

- In completing the 2025 requirement for 100 MW of solar installed, over 1,000 jobs could be created[3]
- In total, to meet the 150 MW requirement, over 1,500 jobs could be created[4]
- All work will be done via public works and solar installations will be operated and maintained by the city – project work will be subject to prevailing wage

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[1] CJNRC bill analysis.
[2] Ibid.
[3] CJNRC bill analysis.
[4] Ibid

CARBON EMISSIONS REDUCTION

- Currently, buildings generate nearly 80% of NYC's total greenhouse gas emissions[5]
- Between 2025–2030, with 100 MW up and running and as the installation projects continue, the city can benefit from avoiding 316,985 metric tons of CO_2 — which equates to removing 70,000+ cars from the road[6]
- Once 150 MW of solar are fully operational on public buildings, the city would reduce an additional 101, 820 metric tons of CO_2 annually — which equates to removing another 22,658 cars from the road per year[7]

ADDITIONAL FUNDING SOURCES AVAILABLE

- The Inflation Reduction Act can reimburse, through a Direct Pay provision, 30% of the project costs[8]
- The New York State Solar Program "NY-Sun" makes available $10 million for projects to complete the goals of this legislation[9]
- We estimate school aid capital expenditure reimbursement to be $78,656,250 for the total completed projects
- Further incentives within the Inflation Reduction Act make renewables projects in low-income communities eligible for 10–20% in additional investment tax credit[10]

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[5] (https://infohub.nyced.org/docs/default-source/default-document-library/sustainability-annual-report-2019-2020.pdf) p.14 / https://www.nyc.gov/site/buildings/codes/sustainability.page
[6] CJNRC bill analysis.
[7] Ibid.
[8] IRA § 13102; 26 U.S. Code § 48. / https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy
[9] "Con Edison Dashboard." NYSERDA, https://www.nyserda.ny.gov/All-Programs/NY-Sun/Contractors/Dashboards-and-incentives/ConEd-Dashboard. Accessed 27 February 2024.
[10] IRA § 13102; 26 U.S. Code § 48. / https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy

Testimony of Jay Wu
The New York City Council
Committee on Environmental Protection, Resiliency, and Waterfronts
Re: T2024-0632, Installation of Solar Photovoltaic Systems and Battery Storage Capacity
March 1st, 2024

Honorable Members of the NYC Council,

My name is Jay Wu and I am Policy Analyst with Climate Jobs National Resource Center. Our organization has state coalitions across the country, and we support initiatives that will build a clean energy economy, create good union jobs, and improve equity in our communities.

That's why we strongly support Councilmember Nurse's public solar power bill (T2024-0152) because this bill is not only a huge step towards building a green economy, it's a smart and practical move for New York City. The quicker we move, the more funding we can draw from federal and state programs to meet our climate goals with cost-effective solutions. That's why we must start now.

At this moment, the Federal government is dedicating vast sums of funding through the 2022 Inflation Reduction Act, which includes a groundbreaking policy called Direct Pay. Direct Pay is an as-of-right cash incentive provided to the public sector for building renewable energy projects. That means from now through 2032, every time New York finishes a solar project, our City can get 30% of that project's cost, in cash from the US Treasury.[1] Renewables projects located in low-income communities are potentially eligible for a further 10–20%, but this adder is only available through the end of this year.[2]

[1] IRA § 13102; 26 U.S. Code § 48.
[2] Ibid.

In addition to federal funds, the City could draw roughly $10 million from New York State's solar incentive program[3] and, based on our estimates, up to $78 million through New York State's Building Aid Reimbursement program. That's another 15% on top of the 30% in federal dollars, meaning about half of this project could be paid by federal and state funding sources.[4] With these incentives plus the energy cost savings generated by solar, over the course of its useful lifetime, solar pays for itself 2.5 times over.

The time is now to act boldly. By waiting any longer, New York City will lose the chance to access these huge opportunities to fight climate change while saving costs and creating union jobs. We urge the City Council to enact this legislation.

Thank you for your time and consideration.

Jay Wu
Policy Analyst, Climate Jobs National Resource Center

[3] "Con Edison Dashboard." NYSERDA, https://www.nyserda.ny.gov/All-Programs/NY-Sun/Contractors/Dashboards-and-incentives/ConEd-Dashboard. Accessed 27 February 2024.
[4] CJNRC bill analysis.

[redacted]

From: Bryn H-R [redacted]
Sent: Saturday, March 2, 2024 4:01 PM
To: Testimony
Subject: [EXTERNAL] Support of Solar and Storage bills

[redacted]

To Whom it May Concern,

I am writing in support of Int. 0129, Int. 0347, Int. 0353 and Int. 0354. Using the city's property and funding to deploy renewable energy systems is important, and I would be supportive of even more ambitious bills - requiring more solar capacity, more storage, and doing more to require or encourage the installation of solar and storage on non-city owned buildings and lots.

I strongly urge you to pass these bills, and to keep increasing the city's ambition with regards to climate action.

Sincerely,
Bryn Huxley-Reicher

THE COUNCIL
THE CITY OF NEW YORK

Mayor's Office

Appearance Card

I intend to appear and speak on Int. No. ~~_____~~ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Lydia Weiner

Address: City Hall

I represent: MOCEJ

Address: (City Hall)

THE COUNCIL
THE CITY OF NEW YORK

Q and A

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Elijal Hutchinson

Address: _____

I represent: MOCEJ

Address: City Hall

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Richard Mantell

Address: UFT Vice President

I represent: 52 Broadway

Address: _____

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. 0353 Res. No. _____

☑ in favor ☐ in opposition

Date: 3/1/24

(PLEASE PRINT)

Name: Azucena Qadeer

Address: [redacted] e 9th street

I represent: IREEage

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. 0353 Res. No. _____

☒ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Flanderas Jones

Address: 131 West 33rd Street

I represent: New York State Nurses

Address: Association

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Q And A

Date: _____

(PLEASE PRINT)

Name: Carleen McLaughlin – DEP

Address: _____

I represent: DEP

Address: _____

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THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 3/1/24

(PLEASE PRINT)

Name: MATTHEW BERK

Address: ACTING ASST. CMSR, DCAS REAL ESTATE

I represent: DCAS

Address: 1 CENTRE ST

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 3/1/24

(PLEASE PRINT)

Name: BRENT TAYLOR

Address: ASST CMSR DCAS FLEET MGMT.

I represent: DCAS

Address: 1 CENTRE ST

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 3/1/24

(PLEASE PRINT)

Name: STEVEN CAPUTO

Address: ASST CMSR, DCAS ENERGY MGMT.

I represent: DCAS

Address: 1 CENTRE ST

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 3/1/2024

(PLEASE PRINT)

Name: SANA SARAKAT

Address: DEPUTY CMSR, ENERGY MGMT.

I represent: DCAS

Address: 1 CENTRE STREET

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☑ in favor ☐ in opposition

Date: 3/1/2024

(PLEASE PRINT)

Name: Jeffrey (Jay) Wu

Address: [redacted] Underhill Ave, [redacted] Brooklyn NY 11238

I represent: Climate Jobs National Resource Center

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☑ in favor ☐ in opposition

Date: 3/1/24

(PLEASE PRINT)

Name: Ben Dorman

Address: 350 W 31st St. New York, NY 10001

I represent: Climate Jobs NY

Address: same

Please complete this card and return to the Sergeant-at-Arms