



NYCHA Sustainability Agenda

Innovating at Scale

2026





Contents

INTRODUCTION	07
Letter from the Chief Executive Officer	08
Letter from the Chief Asset & Capital Management Officer	10
Executive Summary	12
I SUSTAINABILITY AT NYCHA	15
NYCHA's Priorities	22
The First Ten Years Of Sustainability at NYCHA	26
The Next Five Years Of Sustainability at NYCHA: Innovating at Scale	30
II 2031 GOALS AND STRATEGIES	38
GOAL 1: Install heat pumps in 20,000 apartments	42
Strategy 1.1 Complete Clean Heat for All Challenge	
Strategy 1.2 Upgrade building envelopes and convert to heat pump domestic hot water	
Strategy 1.3 Develop a NYCHA cooling plan that prioritizes heat pump conversions	
GOAL 2: Install high-efficiency lighting and water fixtures at 45,000 apartments	50
Strategy 2.1 Reach 9,000 apartments through the Weatherization Assistance Program	
Strategy 2.2 Reach 19,000 apartments through Energy Performance Contracts (EPCs)	
Strategy 2.3 Install efficient lighting and water fixtures for all PACT and Trust upgrades	
GOAL 3: Install induction stoves in 10,000 apartments	62
Strategy 3.1 Complete battery-induction stove pilot and scale up when ready	
Strategy 3.2 Continue monitoring for additional induction stove innovations	
GOAL 4: Modernize waste infrastructure at 144 NYCHA properties	70
Strategy 4.1 Build waste yards at 87 properties	

Strategy 4.2 Replace 913 interior compactors that are past their useful life	
Strategy 4.3 Build convenient recycling and organics diversion facilities	
GOAL 5: Protect 146 buildings from climate-related disruptions	78
Strategy 5.1 Implement flood protections at buildings affected by Hurricane Ida	
Strategy 5.2 Implement automatic voltage regulators (AVR) program at 39 buildings	
Strategy 5.3 Add landscape-based stormwater management to vulnerable properties	
Strategy 5.4 Explore expansion of resilient power supply at NYCHA	
GOAL 6: Pilot and scale-up Waste Plumbing Initiative at 15 properties	86
Strategy 6.1 Implement Waste Plumbing Initiative at pilot sites	
Strategy 6.2 Scale Waste Plumbing Initiative to apartment lines most in need	
GOAL 7: Provide 150 public electric vehicle charging stations in NYCHA parking lots	90
Strategy 7.1 Develop partnerships with third-party EV charging companies	
Strategy 7.2 Work with DCAS to expand charging opportunities	
GOAL 8: Achieve NYCHA's 30 megawatt solar installation goal	96
Strategy 8.1 Continue expanding community shared solar program on Section 9 roofs	
Strategy 8.2 Integrate solar into Section 8 conversions where feasible	
GOAL 9: Create economic opportunity for at least 1,300 NYCHA residents through NYCHA sustainability work	100
Strategy 9.1 Train 1,000 NYCHA residents in clean energy & building technologies	
Strategy 9.2 Connect at least 200 NYCHA residents to employment opportunities	
Strategy 9.3 Support 100 NYCHA resident greening champions	
III FINANCING INNOVATION	108

Introduction



Letter from the Chief Executive Officer

Since opening the nation's first public housing development in 1935, the New York City Housing Authority has held firm to its mission: to provide safe, decent affordable housing to low- and moderate-income New Yorkers. Today, this mission is more critical than ever, as New York City faces an affordable housing crisis and the increasing challenges posed to all New Yorkers by climate change. NYCHA's portfolio is part of the city's lifeblood, home to 1 in 16 New Yorkers. There is no affordable New York City without NYCHA, and the Mamdani administration's emphasis on affordability and climate action will support the Authority in making meaningful progress on sustainability in the years to come.

To ensure our ability to meet this mission, NYCHA continues to innovate in how we modernize and manage our portfolio of properties. Our work is focused on promoting resident health and well-being by addressing priority physical needs, strengthening the reliability and efficiency

of building systems, and mitigating the impacts of climate change. The goals and strategies developed together with our residents, partners, and stakeholders – and laid out in this, our third Sustainability Agenda – are central to achieving our mission and are driven by these priorities.

NYCHA's capital expenditure in Section 9 properties hit a historic high of \$1.25 billion in 2025, with a \$6.8 billion portfolio of over 500 active capital projects. Close to \$700 million of City funding will support the initiatives detailed in this agenda. Even with this level of direct investment, there remains a gap of tens of billions of dollars needed to renovate NYCHA's entire portfolio to ensure its viability for the next generation. Section 8 conversions through the Authority's PACT program, and the newer New York City Public Housing Preservation Trust, are central to addressing this gap and advancing the goals and strategies we identify in this agenda, as they unlock additional sources of public and private capital financing.

The work outlined in this agenda continues to position NYCHA as a leader in affordable housing preservation and, as part of this work, in climate adaptation. We are able to do this work through the commitment and creativity of our staff, engagement of our residents, and support from our partners in the public, private and non-profit sectors. In the next five years, we look forward to deepening and growing our partnerships to achieve our goals.

Lisa Bova-Hiatt



Letter from the Chief Asset & Capital Management Officer

This agenda marks an exciting new phase for sustainability at NYCHA and for NYCHA residents. Over the last 10 years we have tested and refined a variety of approaches to addressing the Authority's most pressing physical needs, operational challenges and resident priorities, while also furthering NYCHA's and the City's shared climate goals of strengthening resiliency to climate-related disruptions and reducing greenhouse gas (GHG) emissions.

The 2026 *Sustainability Agenda: Innovating at Scale* is about taking what we have demonstrated to be the most effective strategies and technologies for the challenges we face, and integrating these in our capital investment programs and how we operate and maintain our properties. NYCHA already considers the implications of coastal flooding, extreme rainfall and heat, and GHG emissions in scoping and designing all our modernization projects. By harnessing new technologies, we can make our buildings more

comfortable and healthier for residents, safer in major storms and other climate hazards, more efficient in their use of electricity and water, and easier to operate, while transitioning them away from fossil fuel-powered technologies.

Through this agenda, new technologies for heating and cooling, cooking, lighting and water use, waste plumbing and waste management, and flood protection – as well as innovative project delivery and construction methods – will become the standard in all of our work. Many of these technologies and renovations are also more efficient to operate and maintain, enabling better service quality and yielding significant direct and indirect savings that can be reinvested in building upgrades and maintenance. And, throughout all of this work, we will engage NYCHA residents in shaping their communities and support them in accessing economic opportunities associated with the growing sustainability economy.

NYCHA utilized our influence and market power as the largest landlord in NYC and the largest provider of deeply affordable housing in the country, to accelerate the development of innovations for retrofitting multifamily residential buildings and making them more resilient and sustainable. We hope these solutions will be taken on by other property owners and help accelerate New York City's achievement of its climate goals.

We are excited about what the next five years hold!

Shaan Mavani

EXECUTIVE SUMMARY

NYCHA's 2026 Sustainability Agenda represents an ambitious, but achievable, vision that cuts across our Section 9 and Section 8 properties. It was developed through extensive internal and external consultation – within NYCHA, with residents through the Citywide Council of Presidents (CCOP) of Resident Associations and the Resident Roundtable, through NYCHA's Sustainability Council of public and private sector leaders, and through direct consultation with government partners at City, State and Federal levels.

Achieving the goals and specific targets in this agenda will put NYCHA on course to meet the Authority's and the City of New York's long-term objectives around affordable housing preservation, climate adaptation and resilience, and the 80x50 goal for reductions in greenhouse gas emissions. In the more immediate term, implementing the goals and strategies in this agenda will result in improvements to quality of life for NYCHA residents.

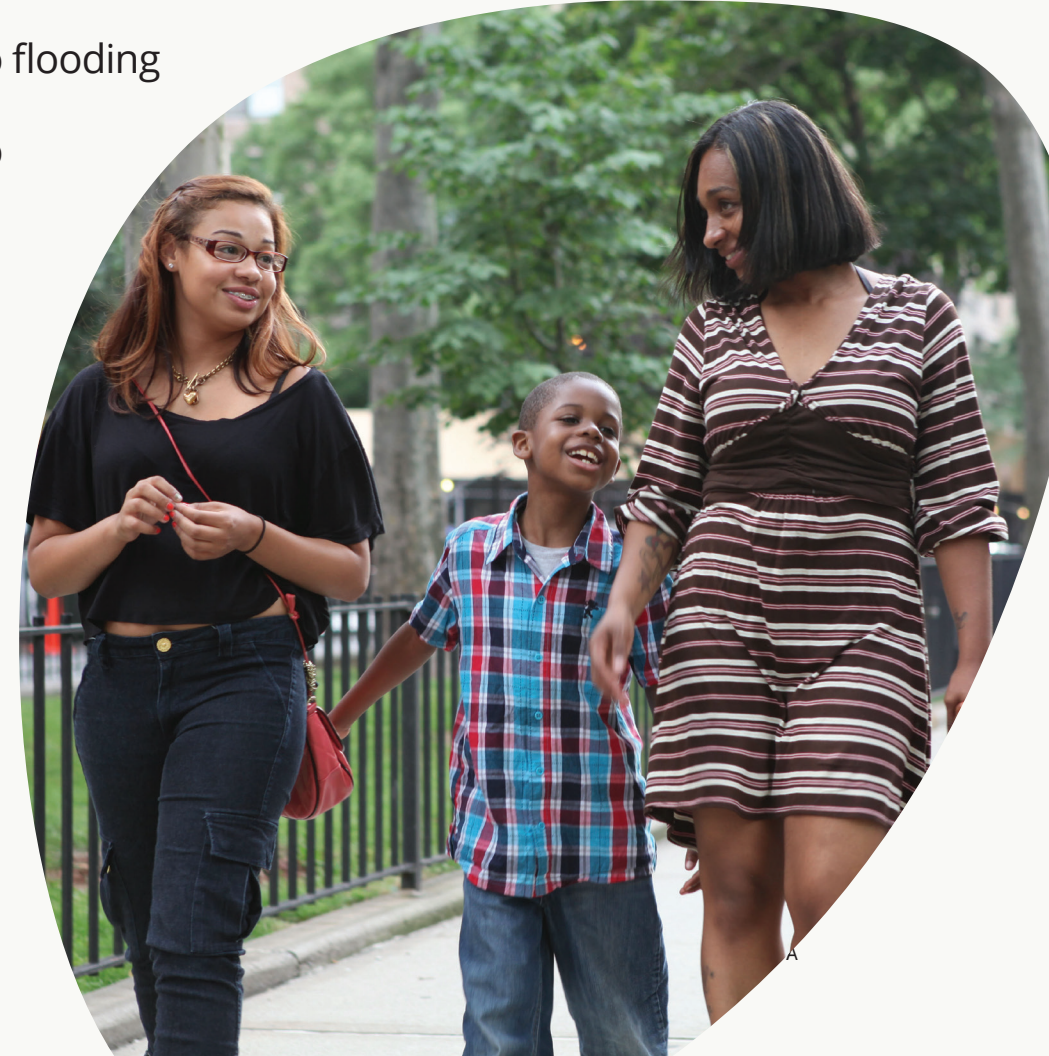
This document consists of three main sections. Together, these sections describe how NYCHA got to where it is today in developing the Authority's approach to sustainability through innovation, where the Authority will focus on the next five years, and the advocacy and financing solutions required to make this happen.

I: SUSTAINABILITY AT NYCHA

This section describes the history and current approach to implementing sustainability initiatives. This section identifies the priorities that informed NYCHA's goals in this agenda:

1. Promoting resident health and well-being
2. Addressing NYCHA's priority physical needs
3. Increasing funding for property upgrades and operations
4. Reducing energy and water usage and greenhouse gas emissions
5. Increasing resiliency to flooding
6. Increasing resiliency to extreme heat

Section I also highlights the major accomplishments and advancements under the first two NYCHA Sustainability Agendas and describes how the work accomplished in the past ten years has set the stage for the *2026 Sustainability Agenda: Innovating at Scale*. In the next five years, NYCHA will scale up the strategies and technologies that have the greatest potential to address the Authority's challenges while also creating opportunities for additional innovation. The section ends by mapping the agenda's nine goals against the six priorities – most goals address multiple priority areas.



II: 2031 GOALS & STRATEGIES

This section details the nine goals that will be accomplished in the next five years, specifying a quantitative target for each goal, and laying out the specific strategies that will be undertaken to reach these targets by 2031. These goals and strategies address capital needs for most major building systems and infrastructure – heating and cooling, domestic hot water, building envelopes, electrical, lighting, plumbing, apartment kitchens and bathrooms, elevators, waste management, and flood protection – through critical replacements and upgrades that make them more reliable, resilient to climate-related disruptions, and efficient. These renovations in turn help make NYCHA residents safer, healthier, and more comfortable in their homes and buildings. Rounding out NYCHA's goals

and strategies are public-private partnerships in electric vehicle charging infrastructure, solar power, and job training programs to ensure that NYCHA residents benefit from the broader expansion of the green economy.

Section II also describes other areas that NYCHA may continue to explore related to sustainability goals and Authority priorities. These workstreams do not have set targets, either because they are still in pilot or demonstration phase, there is no reliable funding stream identified yet, or both. Nevertheless, NYCHA continues to cultivate and respond to financing opportunities at the Federal, State, and City levels for areas of ongoing and new work.



2026 SUSTAINABILITY AGENDA BY THE NUMBERS



GOAL 1

20,000 apartments with heat pumps



GOAL 2

45,000 apartments with efficient water and lighting fixtures



GOAL 3

10,000 induction stoves installed



GOAL 4

144 properties with modernized waste infrastructure



GOAL 5

146 buildings protected from climate-related disruptions



GOAL 6

15 developments with new waste plumbing lines



GOAL 7

150 EV charging stations



GOAL 8

30 MW of solar power installed



GOAL 9

1,300 residents benefiting from economic opportunity through NYCHA sustainability work

III: FINANCING INNOVATION

This section quantifies the capital investment needs for implementing this Agenda – approximately \$2.46 billion – and the current funding gap of just under \$1.2 billion for Section 9 properties and a similar amount through Section 8 conversions. As of this writing, NYCHA has secured or anticipates securing funding or financing commitments for fully achieving five of the agenda’s nine goals through Section 9 capital projects and Section 8 conversions, from a combination of: Federal, State and City capital appropriations, disaster recovery funds and competitive grants; tax credits and private debt and equity investments; Energy Performance Contracts (EPC); and public-private partnerships. This leaves a funding gap of just under \$1.2 billion across four goals, specifically for NYCHA’s Section 9 properties: installation of heat pumps including domestic hot water and window renovations (\$650 million), installation of induction stoves (\$35 million), scale-up of waste plumbing renovations (\$500 million), and resident economic opportunities (\$1.6 million).

NYCHA is advocating heavily with government partners to secure additional funding for Goal 1 (heat pumps), as well as pursuing use of EPCs and Infrastructure as a Service (IaaS) / Energy as a Service (EaaS) financing models. In addition to IaaS/EaaS solutions to finance Goal 3 (induction stoves), NYCHA is focused on innovation grants from State partners, green bank financing solutions, and philanthropic funding partners. Lastly, for Goal 6 (waste plumbing), given the large size of the unmet need and the lack of grant funding and financing solutions for this type of renovation of multifamily buildings, NYCHA is mainly advocating for Federal, State and City capital appropriations. However, across all three areas – as well as other goals in the agenda where NYCHA could exceed targets with additional funding – NYCHA is committed to working with any and all partners on potential solutions to finance the Authority’s efforts to innovate at scale for sustainability.



#	GOAL	SECTION 9 FUNDING (\$M)			POTENTIAL SOURCES
		TOTAL NEED	AVAILABLE	GAP	
1	Install heat pumps in 20,000 apartments	950	300	650	City, State, Federal, Equipment Financing, EPC, IaaS
2	Install high-efficiency water and lighting fixtures in 45,000 apartments	41	41	-	EPC, WAP
3	Install induction stoves in 10,000 apartments	45	10	35	City, State, Federal
4	Build out modernized waste infrastructure at 144 properties	400	400	-	City
5	Protect 146 buildings from climate-related disruptions	300	300	-	City, Federal
6	Pilot and scale-up Waste Plumbing Initiative at 15 developments	720	220	500	City, State, Federal
7	Establish 150 EV charging stations in NYCHA parking lots	-	-	-	Third-party partners
8	Achieve NYCHA's 30MW solar installation goal	-	-	-	Third-party partners
9	Create economic opportunities for at least 1,300 NYCHA residents	2	0.4	1.6	Philanthropic sources
TOTAL FUNDING		\$2,458 M	\$1,272 M	\$1,186 M	

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I. Sustainability at NYCHA

SUSTAINABILITY AT NYCHA

As the city's largest landlord, NYCHA is steadfastly focused on fulfilling the Authority's mission to provide safe, affordable housing for low- and moderate-income New Yorkers. NYCHA's investments in sustainability and climate resilience are integral to this mission: they allow the Authority to modernize as it rehabilitates properties, improving the performance of building infrastructure, reducing the effort and cost of operating and maintaining developments, and protecting residents as the climate continues to change.

NYCHA is often called a city within a city: if NYCHA's population were its own city, it would rank 37th in the United States and would be larger than Atlanta or Miami. NYCHA's 177,565 apartments are a bedrock of New York City's deeply affordable housing stock, and efforts to preserve and improve these properties are essential to the city's overall efforts to maintain affordability and livability, as well as to achieving its climate goals. Across its portfolio, NYCHA faces a \$78 billion capital investment need, resulting from decades of deferred maintenance and underfunding. NYCHA's urgent need for upgrades means that the Authority must use every tool at its disposal to deliver improved conditions to residents.

That work is happening: increased investments from the City and State in recent years have allowed NYCHA to directly invest more than \$1.5 billion each year in core improvements like roofs, heating systems, lead-based paint and asbestos abatement, elevators, ventilation systems, façade repairs, waste management infrastructure, CCTV and security enhancements, and comprehensive modernizations of properties. Through NYCHA's Permanent

Affordability Commitment Together (PACT) Program and the NYC Public Housing Preservation Trust (Trust), Section 8 conversions are mobilizing several billions of dollars each year for comprehensive renovations of NYCHA properties. The scale of NYCHA's properties and planned work means that scaling sustainable and resilient technologies and designs has the potential to make an enormous impact on residents and for the City and the State.

This agenda builds on NYCHA's longstanding efforts to catalyze the development of new technologies, construction and project delivery methods; serve NYCHA's need for better performing and cleaner building systems; improve energy and water efficiency; upgrade waste management and recycling; and strengthen protections for residents against extreme weather events. It focuses on scaling the most successful elements of this work, setting out specific, quantitative targets for key initiatives to be completed over the next five years, ensuring that the current investments in public housing results in safer, more comfortable, and efficient homes for the next generation of New Yorkers.



NYCHA'S PRIORITIES

With significant operational and capital funding needs across the portfolio, NYCHA must be strategic about allocating the Authority's limited funding, staffing, and other resources to ensure maximum benefit to residents. The goals articulated in this agenda advance Authority-wide priorities.

1

PROMOTING RESIDENT HEALTH AND WELL-BEING

Residents' health and comfort in NYCHA apartments and properties are paramount in determining how funds are spent. Sustainability initiatives must create meaningful improvement in residents' satisfaction with their apartments, buildings, and developments, or environmental conditions related to residents' health. Shifting to heat pump-based heating systems, for example, not only provides more energy-efficient technology, but also allows residents to control their own apartments' temperature and provides cooling as well as heating. Converting from gas to electric stoves for cooking improves indoor air quality and safety in addition to contributing to greenhouse gas emissions reductions. Upgrades that improve resident safety and comfort are not ancillary to NYCHA's capital work—they are a core priority for Authority capital investments.



2

ADDRESSING PRIORITY PHYSICAL NEEDS OF NYCHA'S PROPERTIES

NYCHA's capital repair needs drive decisions about investments and systems upgrades. Sustainability and resiliency work must address a persistent and acute physical need in order to merit expending scarce public housing dollars at scale. For example, heat pump-based heating systems will be installed first at developments that have heating systems at the end of their useful life. Likewise, the Waste Plumbing Initiative prioritizes investments in the apartment lines with the highest number of leaks, replacing aging plumbing with new pipes and fixtures that eliminates the cause of leaks at the source. Comprehensive building renovations also require careful project scoping to ensure that the project budgets are addressing the highest physical needs with the most effective solutions. Addressing acute physical needs also prioritized resident health and comfort: sites with the acute physical needs are sites where residents are more likely to experience heating outages, and leaks and mold.



3

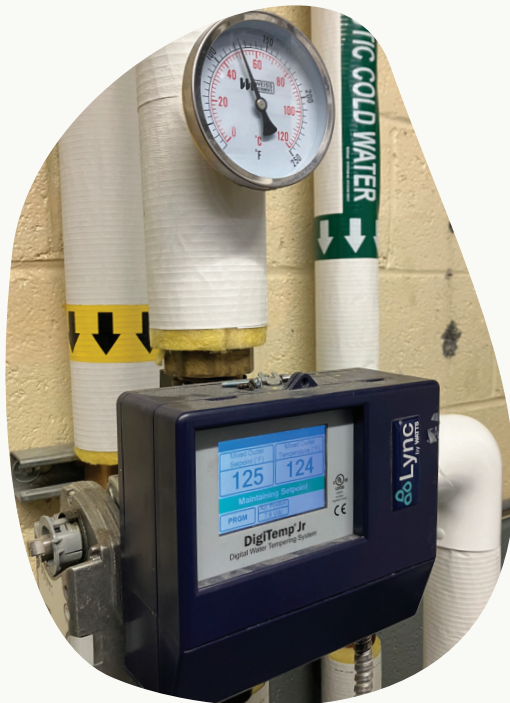
INCREASING FUNDING FOR PROPERTY UPGRADES AND OPERATIONS

Most sustainability and resiliency work has the potential to help NYCHA generate revenue or reduce operating costs; these measures are a priority since they help to address physical needs while generating and diversifying funding to support building operations and additional upgrades. Third-party partnerships to lease parking lots and rooftops to support electric vehicle charging and community shared solar installations are among these efforts. And NYCHA's continued use of Energy Performance Contracting allows the Authority to minimize upfront capital costs for energy conservation measures and to benefit from reduced operating costs through the measures' useful life.



4 **REDUCING ENERGY & WATER USE AND GREENHOUSE GAS EMISSIONS**

Reducing energy and water use and greenhouse gas (GHG) emissions through upgrading building systems and components are core sustainability objectives for NYCHA, given the Authority's commitments to an 80% reduction in greenhouse gas emissions by 2050, pursuant to the City's Local Law 97 of 2021. Efficient lighting, appliances and fixtures also result in cost savings, which can be reinvested in other physical or operational needs. Leak prevention through new plumbing and fixtures not only saves water but also reduces risk of mold and other indoor air quality issues. Community shared solar and EV charging infrastructure support GHG reductions in the broader community surrounding NYCHA properties and citywide.

5 **INCREASING RESILIENCY TO FLOODING**

A significant portion of NYCHA's portfolio has already experienced the damaging effects of coastal storm surge or extreme precipitation, and the number of properties at risk will unfortunately continue to increase. NYCHA prioritizes investments that reduce the impacts of flooding and ensure continuity of services during extreme weather. Limiting water intrusion, relocating equipment, and replacing heating equipment in flood-prone basements with heat pumps installed above grade are all ways to protect NYCHA buildings and maintain vital resident services during and after extreme weather events. At the same time, NYCHA continues to advocate for and work with partner agencies on sewer system capacity and broader coastal storm resiliency efforts that can heavily impact NYCHA campuses.

6 **INCREASING RESILIENCY TO EXTREME HEAT**

New York City experiences extreme heat on an annual basis; both the number of hot days and the number of days considered to be extreme heat events are rising. Extreme heat is the nation's deadliest climate threat, and impacts are greatest in vulnerable communities¹. Reliable indoor cooling is the single most effective way to protect New Yorkers from extreme heat. For Section 8 conversions, providing apartment cooling is a program requirement. Residents at Section 9 properties can also be provided with reliable indoor cooling through installation of packaged heat pumps.



¹<https://www.nysed.gov/Featured-Stories/Protecting-New-Yorkers-from-Extreme-Heat>

These priorities are not discrete or siloed, and most of the goals and initiatives detailed in this Agenda target multiple priorities, in particular addressing priority physical needs, improving resident health and well-being, and reducing energy and water use and GHG emissions. Affordable housing and sustainability are deeply intertwined as climate risk becomes a day-to-day concern for New Yorkers.

THE FIRST TEN YEARS OF SUSTAINABILITY AT NYCHA

This agenda takes on the critical task of scaling sustainability and resiliency practices across NYCHA's portfolio. It takes what has been learned over the 10 years since NYCHA released its first Sustainability Agenda in 2016 and concentrates the Authority's focus on initiatives that will drive the most progress toward NYCHA's top priorities. NYCHA's history of sustainability work has built the foundation on which the ability to scale this work rests.

2016

BUILDING A FOUNDATION



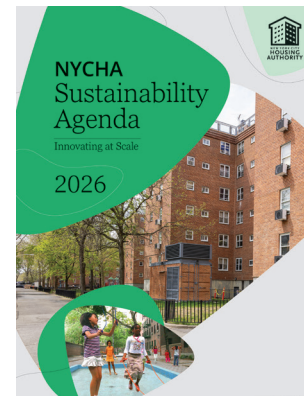
2021

PILOTING DIVERSE APPROACHES



2026

INNOVATING AT SCALE



2016: BUILDING A SOLID FOUNDATION FOR THE FUTURE

The inaugural Agenda, published in 2016, represented NYCHA's first public commitment to a set of sustainability goals. The Agenda looked to support NYCHA's financial and operational goals by generating capital for energy efficiency investments that improved resident health and comfort. This Agenda also included workstreams to develop plans and guidelines to guide NYCHA's sustainability work beyond the period covered by the Agenda.

KEY ACCOMPLISHMENTS (2016-2021)

Sustainability in Section 8 Conversions

NYCHA's initial Section 8 conversions unlocked nearly \$1.8 billion for comprehensive repairs including sustainability upgrades.

Operational Investments in Sustainability

In 2019 NYCHA published its *Waste Management Plan*, providing the first holistic view of how waste is moved and managed across NYCHA. The plan identified a variety of needs and opportunities to improve waste management practices across the portfolio, including the identification of a significant amount of waste equipment that was past its useful life. This enabled the Authority to secure nearly half a billion dollars for waste asset replacements in the City Capital Action Plan in 2021.

NYCHA also transformed its approach to mitigating mold, launching a portfolio-wide roof fan replacement program that was completed in 2022, cleaning vents comprehensively through the Clean Vents Initiative, and approaching each mold-related work order comprehensively through the use of its mold-busters program. Finally, the Authority also began a large-scale rollout of upgraded building management systems (BMS) technology, allowing the NYCHA heating teams to manage steam heating systems for greater comfort and efficiency.

Capital Investments in Sustainability

NYCHA began implementing the \$3.2 billion Sandy Recovery & Resiliency Program, \$1.5 billion of roof replacements, large waste management and green infrastructure programs as well as partnerships with Department of Sanitation and Department of Environmental Protection to implement these commitments.

NYCHA also secured \$310 million of financing through Energy Performance Contracts (EPCs) and implemented \$17.2 million of work to improve indoor air quality, thermal comfort and energy efficiency using New York State Weatherization Assistance funds.

Community Shared Solar

NYCHA executed its first lease agreements to host 3 megawatts of community shared solar, with an associated \$1.4 million in revenue.

Climate Mitigation & Additional Sustainability Plans

NYCHA released a number of additional plans and tools to guide the Authority's sustainability work, including the *Climate Mitigation Roadmap*, *NYCHA 2.0 Clean Fleet Plan*, *NYCHA 2.0 Waste Management Plan*, *Design Guidelines*, and the *Connected Communities Guidebook*.

2021: PILOTING DIVERSE APPROACHES

The 2021 Agenda reaffirmed NYCHA’s sustainability commitments, extending and expanding on key operational and capital initiatives identified in 2016. These included investments in waste management modernization and stormwater infrastructure, upgrades to address indoor air quality and resident comfort, and the expansion of energy efficiency and water conservation efforts.

The 2021 Agenda also identified a diverse portfolio of pilot projects and new strategies to advance the Authority’s commitments to an 80% reduction in greenhouse gas emissions by 2050 (“80X50”). By implementing a number of new approaches to heating system replacements, developing innovation challenges, and pursuing strategies to achieve high-efficiency building envelopes, NYCHA made great progress in charting and refining its course toward 80x50 goals in the ways that best address NYCHA’s physical needs and cost constraints. In 2024, NYCHA’s annual GHG emissions decreased 14.3% from the 2005 baseline. Beyond contributing to emissions reductions goals, the pilot projects implemented under the 2021 Agenda have resulted in valuable investments in NYCHA properties and lessons about what technologies are the best fit for NYCHA properties.

KEY ACCOMPLISHMENTS (2021-2026)

PACT Conversions and Preservation Trust Establishment

The pipeline of Section 8 conversions continued to grow through PACT and the establishment of the New York City Public Housing Preservation Trust. As of April 2026, these programs have leveraged \$9.9 billion in funding and financing for capital and sustainability upgrades.

Operational Enhancements

NYCHA rolled out the Recycle First program across all properties to help support proper use of recycling infrastructure and educate staff on how to manage

more complex waste streams. The Authority worked to plan for shifting labor needs as heating systems shift to electrified systems, and continued to adopt more widespread use of building management systems (BMS) technology.

Energy Efficiency and Indoor Air Quality Improvements

In partnership with the New York State Weatherization Assistance Program, as of April 2026, NYCHA has initiated \$42 million to improve thermal comfort, energy efficiency, and indoor air quality, exceeding the 2021 goal for this program.

NYCHA also received approval for an additional \$50.4 million in Energy Performance Contract financing since 2021, with another \$230 million of projects in development or pending approval. And NYCHA has refined its approach to using EPC funding over the past five years to maximize the impact of this funding source, generating significant savings from water efficiency improvements and using financing for deeper retrofits that result in decarbonization.

Modernized Waste Yard Infrastructure

NYCHA completed renovation of 600 interior compactor rooms as well as eight redesigned waste yards including a kit-of-parts design toolkit to enable a standardized, larger rollout across the portfolio. Waste yards enable NYCHA staff and residents to manage waste and recycling more efficiently and reduce pests and litter at NYCHA campuses.

First Building Electrification Project

1700 Hoe Avenue in the Bronx was the first NYCHA property to undergo building-wide electrification, including heat and domestic hot water systems.

Clean Heat for All Pilot Program

NYCHA completed the pilot of the packaged heat pumps selected through the Clean Heat for All challenge. The pilot occurred at Woodside Houses and had positive impacts on energy use and space heating costs, and heat pumps were well-received by residents.

Stormwater Management & Cloudburst

NYCHA completed the city’s first cloudburst project to capture and store rain from extreme precipitation events at South Jamaica Houses. The project integrates improved resident amenities including a sunken basketball court that can store water.

Clean Energy Workforce Development

NYCHA launched the NYCHA Clean Energy Academy to prepare NYCHA residents for job opportunities and careers in the trades and occupations most in-demand for clean energy and sustainability projects.

Design Standards

In 2025, NYCHA released its 2025 Design Guidelines which detail the Authority’s performance requirements, standards and specifications for modernization projects at Section 9 and Section 8 properties. According to the guidelines, climate mitigation and adaptation measures – including energy and water efficient technologies, sustainable materials, and resilient building systems, infrastructure, ground and landscape features – should be integrated in designs wherever possible to address increased frequency of flooding and extreme weather events and reduce GHG emissions and waste.

Climate Risk Assessment

NYCHA completed a portfolio-wide climate hazard exposure screening and created capital project design standards for reducing risk at properties that are vulnerable to flood and high heat hazard. NYCHA is working closely with the Mayor’s Office of Climate and Environmental Justice to develop how the Local Law 41 rulemaking is applied to NYCHA capital projects.

THE NEXT FIVE YEARS OF SUSTAINABILITY AT NYCHA: INNOVATING AT SCALE

In this updated Agenda, NYCHA focuses on a set of ambitious interventions that advance sustainability at NYCHA while addressing multiple priorities. They adopt the equipment, technology, and processes tested in recent years as standard operating procedure, while continuing to allow room for innovation and improvement in approach. The targets associated with each goal are challenging but achievable, and they will allow the Authority to show substantive progress on this work. Setting specific targets is vital so NYCHA can measure and externally communicate its progress during the five-year period covered by this agenda.



GOALS BY IMPACT AREAS

**Property Physical Needs**

**Resident Health and Well-being**

**Increased Funding For Properties**

**Energy & Water Use & GHG Emissions**

**Resiliency to Flooding**

**Resiliency to Extreme Heat**

IMPACT AREAS						
Goal						
Goal 1: Install heat pumps in 20,000 apartments	○	○		○	○	○
Goal 2: Install high-efficiency lighting and water fixtures at 45,000 apartments	○	○		○		
Goal 3: Install induction stoves in 10,000 apartments	○	○				
Goal 4: Build out modernized waste infrastructure and procedures at 144 NYCHA properties	○	○		○		
Goal 5: Protect 146 buildings from climate-related disruptions	○	○	○	○		
Goal 6: Pilot and scale-up Waste Plumbing Initiative at 15 developments	○	○		○	○	
Goal 7: Provide 150 public electric vehicle charging stations in NYCHA parking lots			○	○		
Goal 8: Complete NYCHA's 30 MW solar goal			○	○		
Goal 9: Create economic opportunity for at least 1,300 NYCHA residents through NYCHA sustainability work		○				

The agenda incorporates valuable lessons from the pilots and achievements completed over the last ten years, including cases where the Authority either did not meet a goal or early efforts demonstrated that a different approach was needed. These lessons learned have informed the development of goals in this agenda by shaping and refining NYCHA's understanding of what solutions are the best fit for the Authority's properties and residents. Here we highlight several examples where pilots and lessons learned have directly informed goals in this 2026 Sustainability Agenda:

- The Clean Heat for All (CH4A) pilot demonstrated the cost and installation efficiency of packaged terminal heat pumps compared to other commercially-available heat pump systems, as well as significant reductions in electricity consumption and greenhouse gas emissions and near-universal resident satisfaction. Building on the pilot, NYCHA will scale-up the initiative significantly in the next 5 years across both Section 8 and Section 9 properties, bringing the benefits of electrified heating and cooling to more NYCHA residents. In many cases this will include new heat-pump based domestic hot water systems, and energy-efficient windows, which were piloted along with the window heat pumps.
- The CH4A pilot also demonstrated that NYCHA's scale can drive market change. By moving forward with the induction stove challenge, NYCHA is continuing to work with private sector partners to find innovative solutions to its sustainability and resiliency challenges.
- This agenda builds on NYCHA's long history of energy efficiency work through Energy Performance Contracts (EPC) and the Weatherization Assistance Program (WAP). Moving forward, NYCHA's EPC work will continue to include water efficiency, which will account for a significant portion of savings. Additionally, NYCHA will work with WAP providers on strategies to serve larger campuses, will continue using EPC and WAP programs to help scale innovative technologies, and will look to integrate WAP upgrades as accompanying work to larger heating projects.
- Lessons learned through NYCHA's Sandy Recovery & Resiliency program will inform which flood protection strategies the Authority will prioritize in protecting buildings impacted by Hurricane Ida, with a particular focus on elevating critical systems, using passive approaches to flood protection wherever possible, and incorporating conveyance of water flows on the broader campus in addition to building-level protections. This previous experience, combined with greater understanding of the emerging climate hazards that have become more prominent over the last five years, shape the resiliency-focused goals aiming to protect more NYCHA buildings and residents from extreme weather events.
- The Waste Plumbing Initiative is the outgrowth of several streams of work under the last agenda to address mold conditions. Over the last several years, NYCHA has addressed leak and mold issues systematically through roof replacements and ventilation upgrades. As these issues were addressed, NYCHA identified waste plumbing lines as the most significant ongoing driver of leaks and mold at many NYCHA developments.

As a result, NYCHA's Healthy Homes department piloted an initiative to fully replace the most deteriorated individual building waste lines, coupled with related apartment renovations. Building off of this Building Line Initiative – which will also continue to target individual building lines – NYCHA will now implement a capital program to address waste plumbing lines, focusing on multi-line, multi-building scopes of work at developments with the highest concentrations of deteriorated waste lines.

- The development of standardized designs and approaches to modernize waste infrastructure resulted in NYCHA's ability to scale this work, applying these strategies across 87 properties.
- NYCHA did not meet its goal to install 30 MW of solar by 2026: as of this writing, 5.3 MW of solar are installed and operational, with another 6.3 MW in construction, 11.3 MW in awarded leases planning to start construction this year, and 2.1 MW awarded with leases pending signature. NYCHA is working to execute remaining leases in negotiation and add to its total to reach the 30MW goal, but with some delayed progress and a newly changed incentive structure, the Authority has not expanded that goal in this agenda. Completion of this goal is planned under the 2026 Agenda, with the growing PACT and Trust pipelines as key partners to achieving this goal. NYCHA will continue to work opportunistically to increase solar deployment as conditions allow.
- NYCHA did not install any publicly accessible charging stations for electric vehicles, a goal stated in the 2021 Sustainability Agenda. While this remains a goal, NYCHA has shifted its plans for how to achieve it significantly. High prices for the required electric upgrades and other work led NYCHA to decide not to expend its own capital resources on these facilities, but rather to partner with third parties to expand EV charging resources while seeking to generate revenue.



ACCELERATING SUSTAINABILITY INVESTMENTS THROUGH SECTION 8 CONVERSIONS

NYCHA's sustainability commitments and goals apply to its entire portfolio of buildings, properties and tenants, including Section 9 housing and the growing portfolio of Section 8 properties. Since 2021, the Authority has expanded the number of developments participating in the Permanent Affordability Together (PACT) Program and partnered with the New York City Public Housing Preservation Trust (Trust) on Section 8 conversions. Both programs are central to accelerating NYCHA's progress on its sustainability goals.

The PACT Program and the Trust are complementary strategies used to address NYCHA's \$78 billion capital need. Both enable the Authority to unlock additional funding for comprehensive building-level and in-unit upgrades, including critical sustainability and resiliency measures. Both programs can access the full range of funding sources available for affordable housing development and preservation, including tax credits and public and private loans.

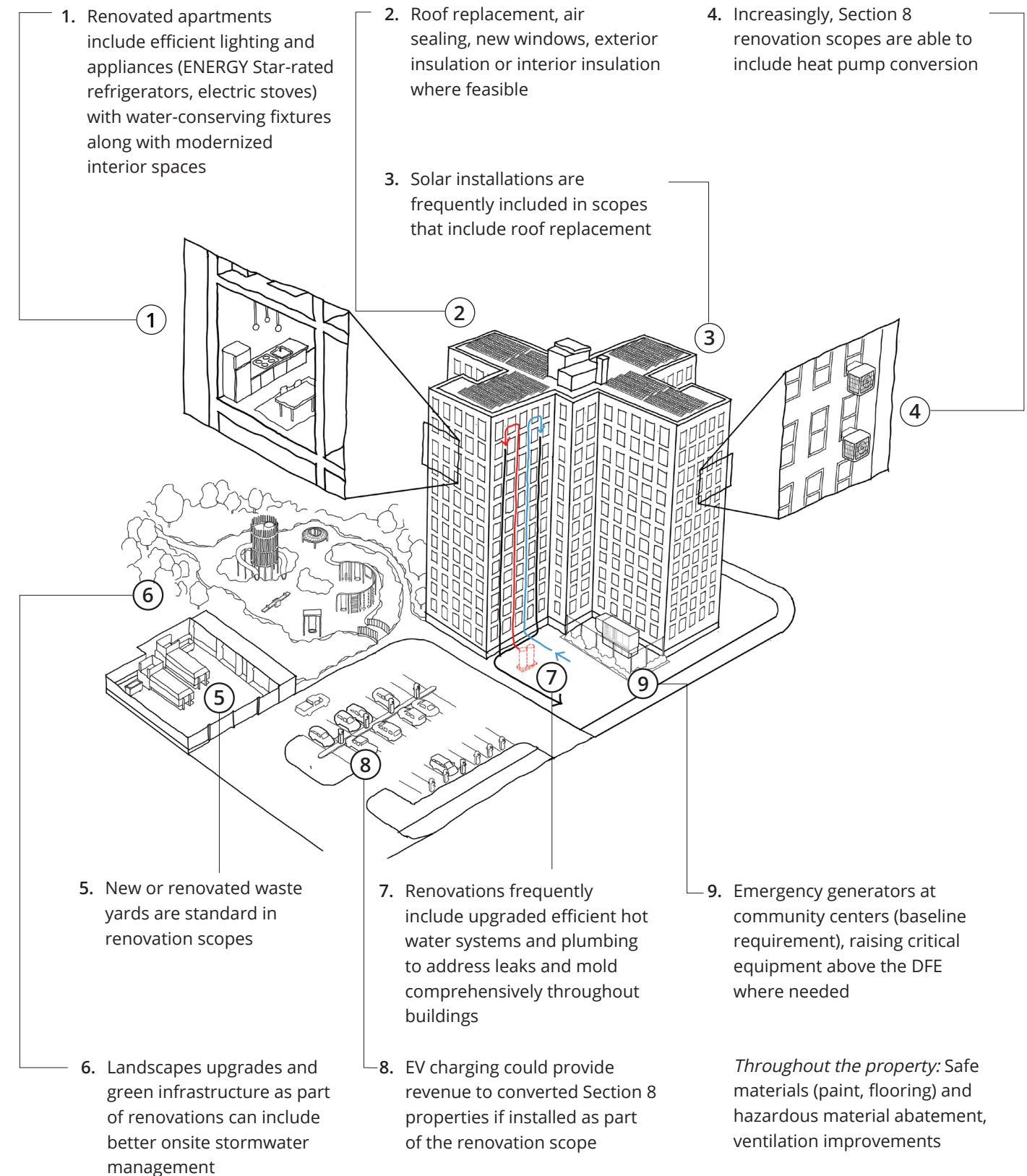
PACT and Trust conversions also unlock a more reliable funding source for ongoing building operations and capital investment through increased Section 8 subsidies. PACT Partner teams assume property management responsibilities, thereby becoming critical partners in implementing NYCHA's Sustainability Agenda on a day-to-day basis while NYCHA, with these additional resources, remains as the property manager after a Trust conversion.

As of April 2026, more than 44,000 apartments across 173 developments are in pre-development, under construction, or have completed renovations through the PACT program. In 2025, NYCHA closed on \$1.6 billion in financing for 24 PACT properties, bringing total PACT financing to date to nearly \$10 billion.

Residents at four developments – Nostrand Houses, Bronx River Addition, Unity Towers, and Hylan Houses – have voted to opt into the Trust, and contracting for \$493 million in comprehensive repairs for the first two – Nostrand Houses and Bronx River Addition – was executed in 2025.

NYCHA expects that PACT and Trust properties will account for more than half of the Authority's heat pump goal laid out in this Agenda. As of March 2026, PACT Partners have invested more than \$104 million in electrifying building systems – including electric heating, cooling, domestic hot water systems, and cooking – covering 5,918 apartments across 11 developments.

This diagram illustrates how Section 8 conversions can achieve a comprehensive sustainability scope of work.



ENVIRONMENTAL PLANNING AT NYCHA

Environmental reviews are required for any project that utilizes public funding or is undertaken based on the judgement and decision-making of a government official or agency. The purpose of an environmental review is to assess, disclose, and mitigate to the greatest extent practicable any potential significant environmental consequences of a project. Because NYCHA operates with funding from Federal, State and City sources, projects often require multiple levels or types of review. NYCHA works to conduct an environmental review that accounts for all applicable regulations while facilitating efficient project delivery. NYCHA's priorities in approaching environmental review include:

1) Adapting environmental review to allow for new technologies

NYCHA worked with the State Historic Preservation Office (SHPO) to determine that window heat pumps will be considered an exempt action for the purposes of historic preservation, acknowledging that window heat pumps do not negate the historic value of NYCHA properties. In addition, NYCHA's five-year Environmental Review Record (ERR), is evaluating window heat pumps on a programmatic basis to speed the review of individual projects that include them. Moving forward, NYCHA will remain alert to the need to adapt its environmental and historic review processes to allow for clarity in how new technologies that are becoming more commonplace in capital projects should be treated.

2) Facilitating Section 8 conversions, infill development & redevelopment

NYCHA is using a variety of delivery methods for housing upgrades and sustainability improvements, and an efficient and comprehensive environmental review process underpins the ability of NYCHA and its partners to deliver projects smoothly and efficiently. To facilitate the redevelopment of Fulton and Elliott-Chelsea Houses – a large-scale project with the potential for significant adverse impacts – NYCHA conducted its first-ever Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). The EIS included approvals from Federal, State and City agencies. As the Authority embarks on larger renovations and new construction projects, and considers further redevelopments, conducting thorough but efficient environmental review processes will continue to be essential.



II. 2031 Goals and Strategies

This section details the goals NYCHA has set for itself for the next five years, and the strategies the Authority will use to accomplish them. Accomplishment of these goals will advance NYCHA as a leader in sustainability in affordable housing and in New York City.

NYCHA and its partners will work across the Section 9 and Section 8 portfolios to implement the strategies outlined here. In addition to the goals and strategies named and quantified, NYCHA will continue to monitor rapidly evolving building technologies and approaches that can serve residents, reduce GHG emissions, and increase climate resilience across NYCHA properties.

GOAL	SECTION 9 GOAL	SECTION 8 GOAL
Goal 1: Install heat pumps in 20,000 apartments	9,000	11,000
Goal 2: Install high-efficiency lighting and water fixtures at 45,000 apartments	18,500	26,500
Goal 3: Install induction stoves in 10,000 apartments	7,500	2,500
Goal 4: Build out modernized waste infrastructure at 144 NYCHA properties	86	58
Goal 5: Protect 146 buildings from climate-related disruptions	89	57
Goal 6: Pilot and scale-up Waste Plumbing Initiative at 15 Properties	15	-
Goal 7: Provide 150 public electric vehicle charging stations in NYCHA parking lots	150	-
Goal 8: Complete NYCHA's 30 MW installation goal	23	7
Goal 9: Create economic opportunity for at least 1,300 NYCHA residents through NYCHA sustainability work	1300	-



GOAL 1

Install heat pumps in 20,000 apartments

PRIORITIES



Property
Physical Needs



Resident Health
and Well-being



Energy & Water Use &
GHG Emissions



Resiliency to Flooding



Resiliency to
Extreme Heat



In the next five years, NYCHA will convert 20,000 apartments from inefficient fossil fuel-based heating systems to clean, efficient, comfortable heat pump-based heating and cooling. Of the 20,000 apartments that will receive heat pumps, 9,000 will be in Section 9 developments and 11,000 will be in Section 8 conversion developments.



NYCHA's "saddle-style" heat pump units occupy only four inches of window space and minimize the need for invasive construction.

Over the past 10 years, NYCHA has worked hard to build a toolkit of solutions to modernize space heating at the Authority. NYCHA's Clean Heat for All Challenge (CH4A), launched in 2021, has produced an efficient packaged window heat pump option that overcomes many of the barriers to introducing efficient modern heating systems to NYCHA apartments.

Heat pumps, which run on electricity and heat and cool individual apartments under the direct control of residents, achieve major energy and greenhouse gas emissions reductions while improving housing conditions at NYCHA dramatically. They allow residents to set the temperature in their own apartments and provide access to cooling, which is typically only available to residents who purchase their own air conditioning units. Additionally, heat pump systems allow NYCHA to decrease its dependence on boiler rooms that are vulnerable to flooding, an important feature as increased areas of stormwater and coastal flood vulnerability affect more NYCHA buildings.

However, typical heat pump systems are difficult and expensive to install in NYCHA's mid-century buildings. NYCHA's initial heat pump pilot in 2019 explored the suitability of available commercial heat pump systems for NYCHA buildings by installing a Variable Refrigerant Flow (VRF) heat pump system in seven apartments at Fort Independence Houses in the Bronx. The pilot revealed numerous challenges to implementing this technology at the scale needed by NYCHA. This included requiring extensive refrigerant piping, electrical, and plumbing work, which necessitated workers from different trades accessing apartments multiple times, a major challenge when working in a fully occupied building. One full-building retrofit, at 830 Amsterdam in Manhattan, did successfully scale a VRF system to a full 159-unit building. This was achieved partially by making use of a disused incinerator cavity, a condition that is not available at most buildings.

To address the problem of scalability the Clean Heat for All Challenge – launched in partnership with the New York Power Authority (NYPA) and the New York State Research and Development Authority (NYSERDA) – asked the private sector to create a packaged heat pump with similar performance of a VRF that could be installed in window openings. As an incentive, the Authority committed to purchasing 30,000 heat pumps after a pilot phase and evaluation (at about three heat pumps per apartment, on average, that means delivering a heat pump upgrade to about 10,000 apartments). In August 2022, two heat pump manufacturers were selected and a pilot was conducted from July 2023 through fall 2024. Pilot results showed an 87% decrease in energy use and a 50% decrease in energy cost, along with consistent, comfortable indoor air temperatures and high levels of resident satisfaction. In addition, packaged window heat pumps reduce the level of required electrical upgrades and can be installed in roughly two hours at a total cost per apartment that is one-third or less of the cost of centralized commercial heat pump systems.

In addition to the packaged window heat pump units, NYCHA and its partners have identified other methods that work well in delivering modern heating and cooling to NYCHA apartments: several comprehensive renovation projects have integrated packaged units that offer similar benefits to the units developed pursuant to the Clean Heat for All Challenge, but require openings to be created in building façades or window area reduction for air intake and outflow. This technology can work well in the context of a larger renovation of a NYCHA building and is being used in several comprehensive modernizations and Section 8 conversions, but is more difficult to implement as a stand-alone retrofit. While NYCHA and its partners continue to explore all available options to deliver quality services to NYCHA residents, including monitoring new technologies as the field rapidly develops, the

Clean Heat for All Challenge has produced the most universally scalable way to implement heat pump conversions within NYCHA buildings.

Shifting to heat pumps means shifting away from steam heat, which dominates NYCHA developments. Steam heat is inefficient: NYCHA’s 2021 *Climate Mitigation Roadmap* documented heat losses that occur throughout the system, including at the central plant, as steam travels through hundreds of feet of underground piping, within the building’s distribution, and finally through open windows that are often used to regulate temperature.

Only one-third of energy input into a typical campus steam system produces useful apartment or hot water heating. Steam systems are also complex to maintain, requiring vigilant monitoring of leaks within extensive networks of underground piping, of condensate pumps, chemical treatment systems, and complex controls within central plants, and of steam traps within apartments. Balanced in-building distribution of steam is challenging to achieve, particularly in a resource-constrained environment. Over the past five years, NYCHA has replaced many of its worst-performing boilers. Now, with new options available, the Authority is minimizing installation of new steam boilers in favor of more modern systems. Where outages continue to occur, the distribution system is frequently to blame: NYCHA is now looking closely at options for refurbishing boilers where work is needed, identifying and addressing root causes of outages and imbalances, and shifting replacement resources to the installation of more modern systems.

NYCHA aims to convert 20,000 apartments from existing inefficient heating systems to heat pump systems over the next five years, establishing heat pump conversions as the expected standard for heating system replacements and

ensuring that more NYCHA residents can benefit from this technology. NYCHA will take resident leadership priorities into account when prioritizing developments for heat pump roll-out, e.g., prioritizing senior buildings that would especially benefit from having cooling. Achieving this goal will also require coordination with Con Edison and state leaders to plan for increased grid capacity and electrification readiness.



Clean Heat for All pilot heat pumps installed at Woodside Houses in Queens.

PACKAGED HEAT PUMP PILOT AT WOODSIDE HOUSES

Both packaged heat pumps selected through the Clean Heat for All Challenge were piloted at Woodside Houses in Queens in two six-story buildings built in 1949 and heated by a two-pipe steam system, which is typical of many NYCHA developments. The heat pumps were installed in 24 apartments, and the installation took only eight days. Heat pumps were installed in each bedroom and living room, along with new dedicated 120V 15A outlets in each room and new triple-pane casement windows.

Electricity consumption for space heating was measured for two heating and cooling seasons and compared to pre-installation consumption. Overall, the pilot sites demonstrated an 84% reduction in energy use for space heating and a 56% decrease in

space heating costs: from 68.4 to 11 kBTU/square foot/year, and \$784 to \$343 per apartment/year. While electric consumption per apartment (kWh/day) did increase during the cooling season with the installation of the heat pumps, the overall summer month kWh/day was about the same or lower after heat pumps were installed. This is notable because all units had access to cooling for the first time, and the heat pumps were in some cases replacing less efficient air conditioners installed by tenants.

Beyond the technical performance, resident satisfaction was high: 100% found the units easy to use, 93% said the unit kept their apartment temperatures “just right” during the heating season, and 89% said they were satisfied with the units.

STRATEGY 1.1

Complete Clean Heat for All Challenge, integrating heat pump installation into stand-alone retrofits, Section 8 conversions, and disaster recovery programs

To complete the initial commitment made by CH4A to install heat pumps at 10,000 units, and expand to reach 20,000 apartments total, NYCHA will integrate the use of packaged window heat pumps across its capital programs. When NYCHA allocates Federal, State, or City capital to a new heating system, integrating window heat pumps will be a priority.

The sites for these installations are based on the developments’ needs.

NYCHA’s City Capital Action Plan, developed in 2019, focused on replacing the boilers that experienced the highest number of outages. NYCHA continues to prioritize investing in the heating systems most in need of upgrades, considering the frequency of outages, the likely remaining life of critical equipment, and the challenges faced by NYCHA’s operational staff in maintaining the existing system. Where window heat pumps are feasible given electrical conditions and operational considerations, they will be the first choice for heating system replacement.

Where flooding has irreparably damaged NYCHA boilers and systems must be replaced, window heat

pumps offer an alternative that allows equipment to be elevated, removing it from basements or sub-basements that remain vulnerable to future flooding. Therefore, NYCHA is integrating the installation of window heat pumps into disaster recovery scopes wherever possible. Finally, when NYCHA is able to invest in comprehensive renovations of buildings including through the Comprehensive Modernization program and Section 8 conversions, heat pumps will be required, with boiler replacement being avoided whenever possible.

STRATEGY 1.2

Maximize the benefits of heat pump conversions by upgrading building envelope and converting to heat pump domestic hot water systems wherever possible

Window heat pump conversions alone do not allow NYCHA developments to completely shift away from steam boilers unless domestic hot water is also converted to a heat pump-based system. The ideal conversion project will include both space heating and hot water, but where this is not possible the Authority will prioritize space heating conversion due to the substantial resident comfort benefits it achieves.

NYCHA has already demonstrated that heat pump conversions in its buildings achieve large energy use reductions without additional work. However, coupling the heat pump conversions with building envelope upgrades, such as air-sealing, roof replacement, and window upgrades and replacements, will improve resident comfort while increasing overall efficiency of the building by reducing the demand on the heat pumps. To that end, all window heat pump installations include sealing the window heat pump to the window frame in which it is being installed. Where budgets allow,

the heat pump installation will also be paired with either new high-performance windows or sash replacements.

In 2023, NYCHA issued a procurement for a bulk purchase of windows and secured a contract that allows the Authority to purchase custom-made triple-glazed windows at a discounted price. These windows contain a sleeve specifically sized for NYCHA's window heat pumps, above which is a casement window that can open when the window heat pump is installed. This ensures that residents maintain operable windows and access to fresh air, a feature that is not available with traditional window AC installations.

Additional improvements to the entirety of the building envelope are difficult to achieve in stand-alone heat pump conversions, but NYCHA works to include such improvements in the scope of more comprehensive renovations. Techniques such as adding insulating panels on the exterior of buildings, making use of Exterior Insulation Finishing Systems (EIFS), and including interior insulation of masonry walls during apartment renovation can be possible when NYCHA is able to invest in comprehensive building renovations through our Comprehensive Modernization program and PACT and Trust conversions. PACT Program requirements include full replacement of windows with high-performance, thermally-broken, double-pane, double-hung or casement windows.

STRATEGY 1.3

Develop a NYCHA cooling plan that prioritizes heat pump conversions

As part of NYCHA's priorities to address extreme heat and comply with new local laws regulating maximum indoor air temperature, NYCHA will develop a comprehensive plan for cooling by 2028. In this plan, NYCHA is required to demonstrate that at least 25% of units will include cooling by 2030, that continued progress will be made toward providing cooling throughout the portfolio, and that provisions will be made for vulnerable populations within NYCHA developments to receive cooling access.

NYCHA's transition to heat pumps addresses this new cooling requirement by providing high-efficiency cooling to every habitable space – bedrooms and living rooms. The window heat pumps have inverter driven compressors which enable them to achieve summer cooling efficiencies far greater than traditional window ACs. To the greatest extent possible, NYCHA will meet its cooling requirements through the provision of heat pumps rather than relying on the installation of window air conditioning units.

ADDITIONAL OPPORTUNITIES

Geothermal

Geothermal heat pumps, or ground-source heat pumps, rely on the constant temperature beneath the Earth's surface to provide clean and efficient heating and cooling, and use less electricity than other types of heat pumps. NYCHA has two active domestic hot water geothermal systems at Jackson Houses and Eastchester Gardens, and is also pursuing a Geothermal Utility Thermal

Energy Network (UTEN) with National Grid at Vandalia Houses. Feasibility studies are either completed or underway at eight developments. Geothermal systems tend to be costly but can make sense depending on site-specific conditions and the overall project scope they are a part of. In general, NYCHA sees more potential for geothermal in domestic hot water production than in apartment space heating due to the extensive interior renovation work and associated cost that is necessary to support geothermal space heating in NYCHA buildings.

Waste Heat Recovery

NYCHA received a grant from NYSERDA in 2025 to explore opportunities for waste heat recovery across NYCHA developments. Wastewater heat recovery is a new technology that captures the thermal energy (heat) from a building's wastewater stream and repurposes it to generate domestic hot water. As NYCHA converts heating systems from carbon-intensive steam boilers to energy-efficient heat pumps, it will need to also electrify the domestic hot water system at the building in order to fully retire the boilers. NYCHA will use the NYSERDA grant to pilot wastewater heat recovery at WSUR Site A on the Upper West Side as part of a forthcoming PACT conversion. Wastewater heat recovery presents a promising proof of concept for electrifying domestic hot water at NYCHA buildings with a similar typology.

GOAL 2

Install high-efficiency lighting and water fixtures at 45,000 apartments

PRIORITIES



Property
Physical Needs



Resident Health
and Well-being



Energy & Water Use &
GHG Emissions



Increased Funding
For Properties



Energy and water efficiency help NYCHA operate as an efficient landlord by generating savings from reduced electricity and water consumption, while also reducing greenhouse gas emissions. Replacing existing lighting and water fixtures with more efficient versions at a building-wide level also improves resident comfort and experience, because it provides an opportunity to address any preexisting problems with lighting and water and also results in improvements to common areas. In the next five years, NYCHA will install high efficiency lighting and water fixtures in 45,000 apartments; 18,500 will be in Section 9 apartments and 26,500 will be in Section 8 conversion properties.



In addition to targeted fixture replacement, NYCHA includes lighting and water fixture upgrades as part of PACT, Trust, and Comprehensive Modernization baseline scopes.

Energy and water efficiency upgrades have been a core part of NYCHA's work for decades. NYCHA has accomplished much of its efficiency work by making use of outside funding and financing, thereby delivering upgrades to the Authority at little to no upfront capital cost.

New York State's Weatherization Assistance Program (WAP), a Federal program funded by the Department of Energy, is administered at the state level and implemented through a network of community-based organizations. NYCHA works with WAP providers to develop scopes of work that can be funded through the program, often complementing investments NYCHA is already making to its heating systems. WAP scopes typically include lighting and water fixture upgrades, replacement of old, energy-intensive refrigerators, and cleaning and balancing of building ventilation systems. In some cases, NYCHA has been able to work with WAP to complete more ambitious scopes, including boiler replacements, window replacements, installing heat pumps for both space heating and domestic hot water at Hoe Avenue in 2023, and installing a heat pump hot water heater at one of the Beach 41st Street buildings. This last project will inform the expansion of electrification to the whole Beach 41st Street campus, using a mayoral funding commitment announced in February 2026.

The U.S. Department of Housing and Urban Development (HUD)'s Energy Performance Contracts (EPC) program allows NYCHA to finance energy and water efficiency investments, again delivering upgrades at little to no upfront cost to the Authority. NYCHA entered its first EPC in 2012 and has financed more than \$307 million of work since that time. EPC scopes of work typically include lighting and water upgrades throughout developments as well as building management system (BMS) controls for heating distribution including apartment temperature sensors; NYCHA frequently bundles savings generated by more

than one development to fund larger investments such as new space heating and domestic hot water systems at key sites within the EPC. The size of EPC financing is based on the cost savings that the energy conservation measures are projected to achieve over the lifetime of the investments. Additionally, participation in an EPC allows the Authority to retain additional savings generated by favorable utility rates. EPCs have historically funded energy efficiency improvements, but water consumption is a major driver of NYCHA's utility costs as well. In 2022, NYCHA reached an agreement with HUD to establish baseline water usage, which can be used to measure and capture savings of water efficiency measures in current and future EPCs. This effort has expanded the potential for EPC financing as water savings now make up a large portion of EPC savings.

NYCHA has worked to upgrade design standards and integrate sustainability measures as baseline scopes when larger renovations are done. This means that lighting and water upgrades also occur as a result of work done for any PACT, Trust, or Comprehensive Modernization project.

NYCHA's target of upgrading lighting and water at 45,000 additional apartments over the next five years takes advantage of continued use of the WAP and EPC programs as well as the baseline improvements that PACT, Trust, and Comprehensive Modernization deliver.

STRATEGY 2.1

Install high-efficiency lighting and water fixtures at 9,000 apartments through the Weatherization Assistance Program (WAP)

WAP is an essential source of funding for NYCHA's energy and water efficiency upgrades. To date, NYCHA has used WAP primarily for projects at scattered-site buildings and smaller rental properties, due to the limited capacity of the community-based providers that form the WAP contractor network. Recently, NYCHA worked with providers to develop strategies to bring WAP services to larger developments. For these sites, projects are divided into multiple contracts, with individual WAP providers addressing specific subsets of the overall scope. NYCHA's first initiative in larger developments involves collaborative efforts among multiple providers within the same borough. This group of four WAP providers, known as the Brooklyn Coalition, is currently working at Albany I & II Houses, with plans to expand this collaborative model to additional WAP providers and sites. This new approach expands the number of properties that can be a fit for WAP-funded scopes of work, which tend to be smaller than NYCHA's typical capital projects. NYCHA has identified developments comprising over 9,000 units that can be addressed through the use of the WAP program by coordinating work with capital investments already planned and working with WAP providers to collaboratively address the needs of larger developments.

STRATEGY 2.2

Install high-efficiency lighting and water fixtures at 9,500 apartments through Energy Performance Contracts (EPCs)

During the five years covered by the 2021 Sustainability Agenda, NYCHA received approval for \$50.4 million in EPC financing and has plans for additional EPCs that are in the process of audits, HUD approval, or financing. These EPCs will result in approximately \$130 million in financing for energy and water conservation measures that will benefit approximately 9,500 apartments across 12 NYCHA developments.

STRATEGY 2.3

Install efficient lighting and water fixtures for all PACT and Trust properties

All PACT and Trust projects are required to comply with Enterprise Green Communities (EGC) standards for affordable housing, which require efficient lighting upgrades for all permanently installed interior and exterior fixtures. Per EGC, plumbing fixtures must be low-flow and comply with set efficiency rates.



COMPREHENSIVE PROPERTY RENOVATIONS DELIVER ON SUSTAINABILITY AGENDA COMMITMENTS

NYCHA is using all available strategies for funding comprehensive building renovations that address the capital needs of critical building infrastructure. Each program delivers comprehensive upgrades that address building systems and in-unit renovations in a holistic way, and provides pathways for advancing NYCHA’s sustainability goals at scale. Integrating sustainability measures into comprehensive renovations can also be more cost-effective than stand-alone sustainability projects or, in some cases, use of fossil fuel-based technologies. For example, in many cases NYCHA is now finding that it is more expensive to replace a boiler than it is to install heat pumps in the context of a comprehensive renovation project.

PACT

PACT is NYCHA’s primary Section 8 conversion program. To date, the program has closed on \$9.8 billion in financing for comprehensive and holistic upgrades to NYCHA properties, including \$104 million specifically for electrifying building systems such as heating, cooling, domestic hot water systems, and cooking. PACT projects have brought the benefits of property-wide improvements in energy and water efficiency and resiliency measures, as well as in-unit heating and cooling through electrification, to 3,592 apartments at 10 properties, where PACT projects have been completed or are in progress. Moving forward, PACT (and Trust – see below) properties account for more than half of the projected 20,000 apartment goal for delivering heat pump conversions to NYCHA apartments in the next five years. Section 8 properties are included in Goal 3 for induction stoves, and PACT Projects are

prioritizing the transition to induction stoves. Because roof replacement is often included in PACT renovations, PACT properties are often good candidates for rooftop solar. In addition, PACT projects are required to obtain Enterprise Green Communities (EGC) Certification – a green building standard that ensures affordable housing is energy efficient, resilient, and healthy. PACT properties are privately managed after conversion to Section 8, which offers a more generous and stable funding source for the ongoing building operations and maintenance that is critical for maintaining the sustainability features installed.

BAY VIEW HOUSES

Bay View Houses in Canarsie, Brooklyn is one of NYCHA’s oldest and most historically significant properties. It was completed in 1956 to address the post-World War II housing shortage, and its 23 brick buildings are designed in a Modernist style and spread over 32 acres designed by notable landscape architects. The site is listed on the National Register of Historic Places, which makes it eligible for Federal historic tax credits. In December 2025, NYCHA and its PACT partners closed on \$757 million in financing for the site’s renovation. The design of the property’s comprehensive renovation prioritizes resident safety, enhanced community spaces and amenities, and preserves the property’s historic character. Bay View’s renovation will include energy-efficient lighting, water-conserving fixtures and approximately 4,900 new window heat pumps purchased through the

Clean Heat for All program to be installed in 1,610 apartments – making this NYCHA’s largest heating electrification project to date. The property will also receive electrical upgrades, plumbing repairs, new flooring and windows, elevator renovations, waste infrastructure improvement and modernized kitchens and bathrooms. Critical equipment will be relocated from basements, and the site will receive deployable flood barriers, protecting it from future coastal flooding. Rain gardens, permeable pavement, and new underground catch basins will help absorb, divert and store water from extreme precipitation.



EAGLE AVENUE-EAST 163RD STREET OF UNION AVENUE CONSOLIDATED

Eagle Avenue-East 163rd Street is one of the seven NYCHA developments included in the Union Avenue Consolidated PACT Project, all of which will receive comprehensive upgrades and rooftop solar panels. The six-story, 66-unit Eagle Ave building is one of two in the cluster that will be fully electrified, including heat pumps for heating and cooling, electric cooking ranges, and an insulated overcladding system in addition to efficient lighting and water fixtures. Overcladding is a set of prefabricated exterior walls that reduce energy consumption, increase insulation and thermal comfort, and reduce greenhouse gas emissions. Because it is installed on exterior walls, overcladding reduces disruptions to tenants that are typically required to address the in-wall

components of heating systems and insulation. This type of major improvement in the building envelope's efficiency is difficult to achieve in a stand-alone capital project, but the comprehensive nature of the PACT renovation scope can allow for the integration of deeper, more comprehensive retrofits like insulated overcladding. The site also has a generator to provide back-up power to the development's community center in the case of power outages, part of NYCHA's strategy for enhancing community and senior centers' ability to serve as Resilience Hubs in the case of emergencies.



GAYLORD WHITE HOUSES

Gaylord White is a senior development located in East Harlem with an attached community center. The site's full renovation will result in electrified heating, cooling and cooking through packaged terminal heat pumps in every apartment. This site is a prime example of how PACT is helping NYCHA achieve its 80x50 goal and achieve Local Law 97 compliance, which applies to the Authority's entire portfolio: modeling of the post-renovation energy and emissions consumption projects that the building will be compliant with Local Law 97

interim and 2050 targets, which the building in its current condition would not. Once renovations are complete, the building is projected to reduce its energy consumption by ~81%, its utility costs by 51%, and its carbon emissions by 85%.



NEW YORK CITY PUBLIC HOUSING PRESERVATION TRUST

The New York City Public Housing Preservation Trust (Trust) is NYCHA's public option to perform comprehensive renovations and modernization by converting development to a higher and more reliable Project-Based Section 8 funding stream to support ongoing building operations and maintenance. This allows NYCHA to add more dedicated, site-specific staff, including property management, maintenance, and resident services roles such as on-site social services.

As a partner to NYCHA, the Trust unlocks capital to finance holistic, building-wide renovations, with a focus on incorporating sustainability and resiliency measures where feasible. To date, residents from four properties have voted to enter the Trust model. This will bring the benefits of comprehensive building upgrades and in-unit renovations to 1,776 apartments, which house more than 3,200 residents. Like PACT projects, Trust projects are required to comply with Enterprise Green Communities standards for efficiency, resiliency and health.

NOSTRAND HOUSES

In December 2023, Nostrand Houses residents voted to be the first NYCHA development to become a Trust site. Nostrand Houses is located in Sheepshead Bay, Brooklyn, and is home to more than 2,200 residents living in 1,148 apartments across 16 buildings. In July 2025, the Trust announced the selection of a design-build team for a more than \$400 million renovation. Design-build project delivery helps owners achieve value and construction quality in large-scale work and improves coordination by awarding contracts for design and construction to a single entity. This project includes efficient lighting and water fixtures and in-unit heat pumps in all 1,148 units. Critical building systems located in basements will be furnished with flood resistant finishes that protect the infrastructure from flooding.



COMPREHENSIVE MODERNIZATION PROGRAM

Comprehensive Modernization (Comp Mod) is a program designed to use capital funds efficiently to achieve holistic upgrades to NYCHA campuses and buildings, improve building performance, enhance residents' quality of life, and preserve public housing for future generations. Specific goals of the Comp Mod program include achieving compliance with all Federal, State and local laws and NYCHA's 2019 HUD Agreement, adapting to climate change, introducing efficient technologies and year-round climate control, and accommodating the needs of a full range of residents including an aging population and those with limited mobility.

Comp Mod is currently active at four properties - St. Nicholas Houses, Todt Hill, Gowanus Houses and Wyckoff Gardens - which have a combined 3,696 apartments and more than 8,000 residents.

ST. NICHOLAS HOUSES

In 2025, NYCHA embarked on its largest design-build contract to date at St. Nicholas Houses in Harlem. The \$477 million renovation will benefit 3,340 residents in 1,526 apartments across 13 buildings. All 1,526 apartments will receive in-unit heat pumps for space heating, new high-efficiency windows, and efficient water and lighting fixtures as part of the full renovation of each apartment. The development's common areas will receive upgraded efficient lighting, and the building's domestic hot water will be supplied by heat pumps, allowing the building to fully remove its reliance on its gas-fired boilers. Additionally, the property will receive an exterior insulation and finish system (EIFS), which improves a building's thermal performance by reducing energy loss and protect against moisture infiltration while upgrading the aesthetic appearance of the buildings. Annually, energy improvements being made at the development will save at least \$428,000 in energy costs, reduce greenhouse gas emissions by almost 5,000 tons CO₂, and reduce water consumption by approximately 46 million gallons.



GOAL 3

Install induction stoves in 10,000 apartments

PRIORITIES



Property
Physical Needs



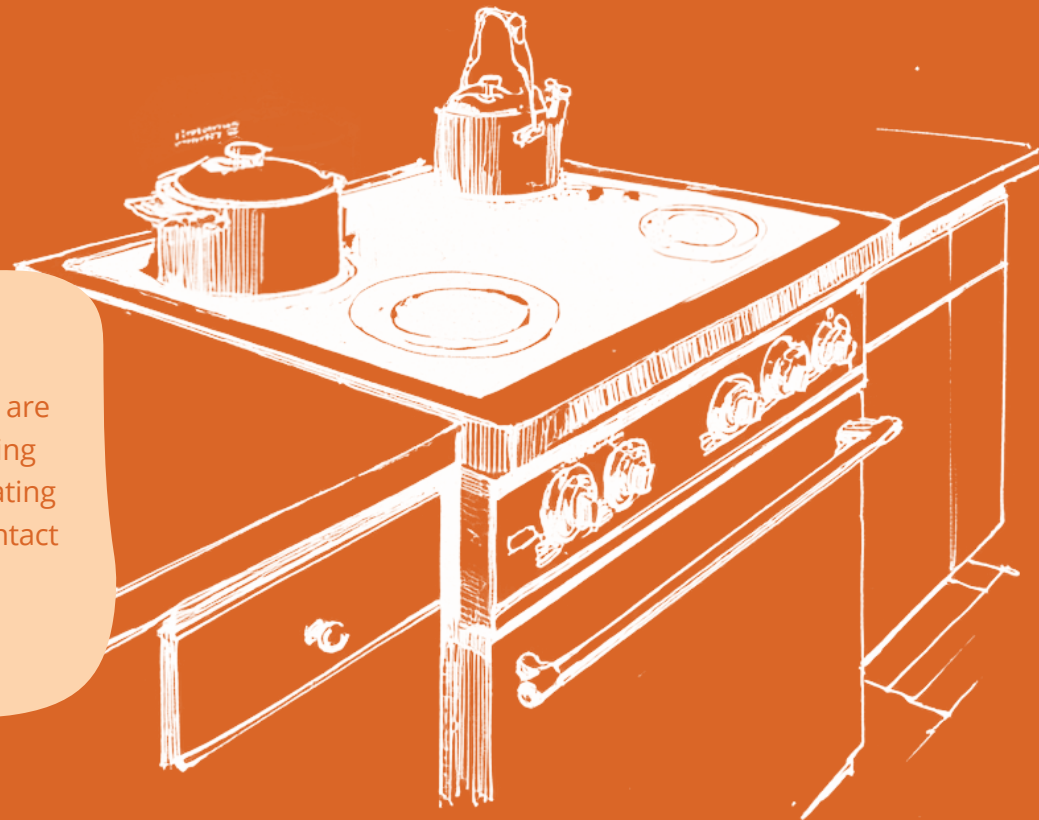
Resident Health
and Well-being



Energy & Water Use &
GHG Emissions



Improving resident health and comfort has been a guiding principle for all of NYCHA's Sustainability Agendas to date, and this commitment is reflected in this agenda with a specific focus on improving indoor air quality through the installation of induction stoves. In the next five years, NYCHA will install induction stoves in 10,000 apartments, including 7,500 in Section 9 apartments and 2,500 in Section 8 conversion apartments.



Induction stoves are an efficient heating source, only creating heat when in contact with cookware.

Gas-burning stoves are a major contributor to poor indoor air quality, emitting air pollutants like nitrogen oxides and carbon monoxide. Long-term exposure to these gases increases the risk of respiratory and cardiovascular illness, including asthma. In New York City, nearly 19% of childhood asthma cases can be attributed to a household's gas stove, and Black and Latinx children and young adults make up 80% of hospital visits for asthma.⁴

An induction stove is similar to an electric resistance stove in its use of a heating coil instead of an open flame, but unlike a resistance stove, induction stoves use an electromagnetic field to heat cookware directly – and very quickly – rather than heating the cooktop surface first. These stoves only create heat when in contact with cookware and thus do not waste heat or produce the emissions created from gas combustion.

STRATEGY 3.1

Complete battery-induction stove pilot and roll out to developments that would have been highest priority for gas riser replacement

Using a similar model to the Clean Heat for All Challenge, NYCHA partnered with the New York State Energy Research and Development Authority (NYSERDA) and the New York Power Authority (NYPA) to accelerate the market for induction stoves that can be installed in older buildings without the invasive and costly electrical upgrade from 120v to 240v that is typically required for induction stoves. Through the Induction Stove Challenge, NYCHA committed to purchasing 10,000 induction stoves from a selected manufacturer who produced an initial run of 100 prototypes for installation and testing. In 2027, NYCHA expects to complete the pilot using this technology. If they meet NYCHA's criteria after an evaluation of the pilot, NYCHA will purchase and install the remainder of the 10,000 unit commitment.

STRATEGY 3.2

Continue monitoring available products that meet NYCHA's needs in a rapidly changing market

NYCHA will continue to monitor the growing market for induction stoves that can be installed in older buildings without requiring an electrical upgrade, and may grow its 10,000 induction stove installation target depending on the level of cost reductions and availability.



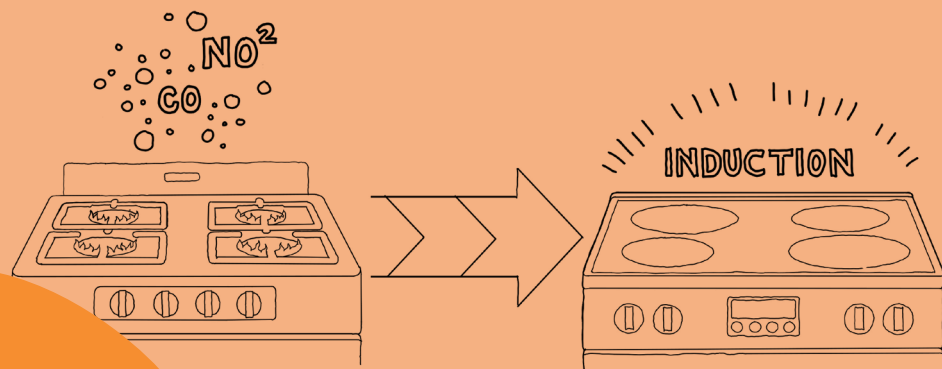
INDUCTION STOVE PILOT SHOWS POSITIVE IMPACTS ON INDOOR AIR QUALITY

In 2021, NYCHA partnered with WE ACT for Environmental Justice (WE ACT) as part of the organization's *Out of Gas, In with Justice* pilot to study the feasibility and benefits of cooking electrification. The pilot installed induction stoves in 10 apartments at Sotomayor Houses in the Bronx, which is also undergoing the Authority's first all-electric retrofit pilot, and evaluated indoor air quality as compared to a control group of apartments with gas stoves.

The results of the evaluation showed dramatic improvements in indoor air quality and reductions in pollutants in both the long-term and near-term during cooking. Over the 10-month monitoring period, households with induction stoves experienced a 35% reduction in daily nitrogen dioxide (NO₂) compared to households with gas stoves.

During cooking tests, the NO₂ concentration in gas stove households was 190% higher than in induction stove households, which maintained an NO₂ level similar to daily, non-cooking times. Carbon monoxide (CO) concentrations in induction stove households were roughly 43% lower than in gas stove households.

A focus group with pilot participants revealed universal satisfaction with the induction stoves. Participants cited the ease of cooking, time savings from faster cook times and easier surface cleaning, decreased reliance on other appliances, and a safer cooking environment. Another shared sentiment was a sense of relief from no longer having to worry about leaks and fires due to aged or outdated equipment and improper installation or use.



Participating households with induction stoves had 35% less nitrogen dioxide and 43% less carbon monoxide than those with gas stoves.



NYCHA’S “80 X 50” GOAL

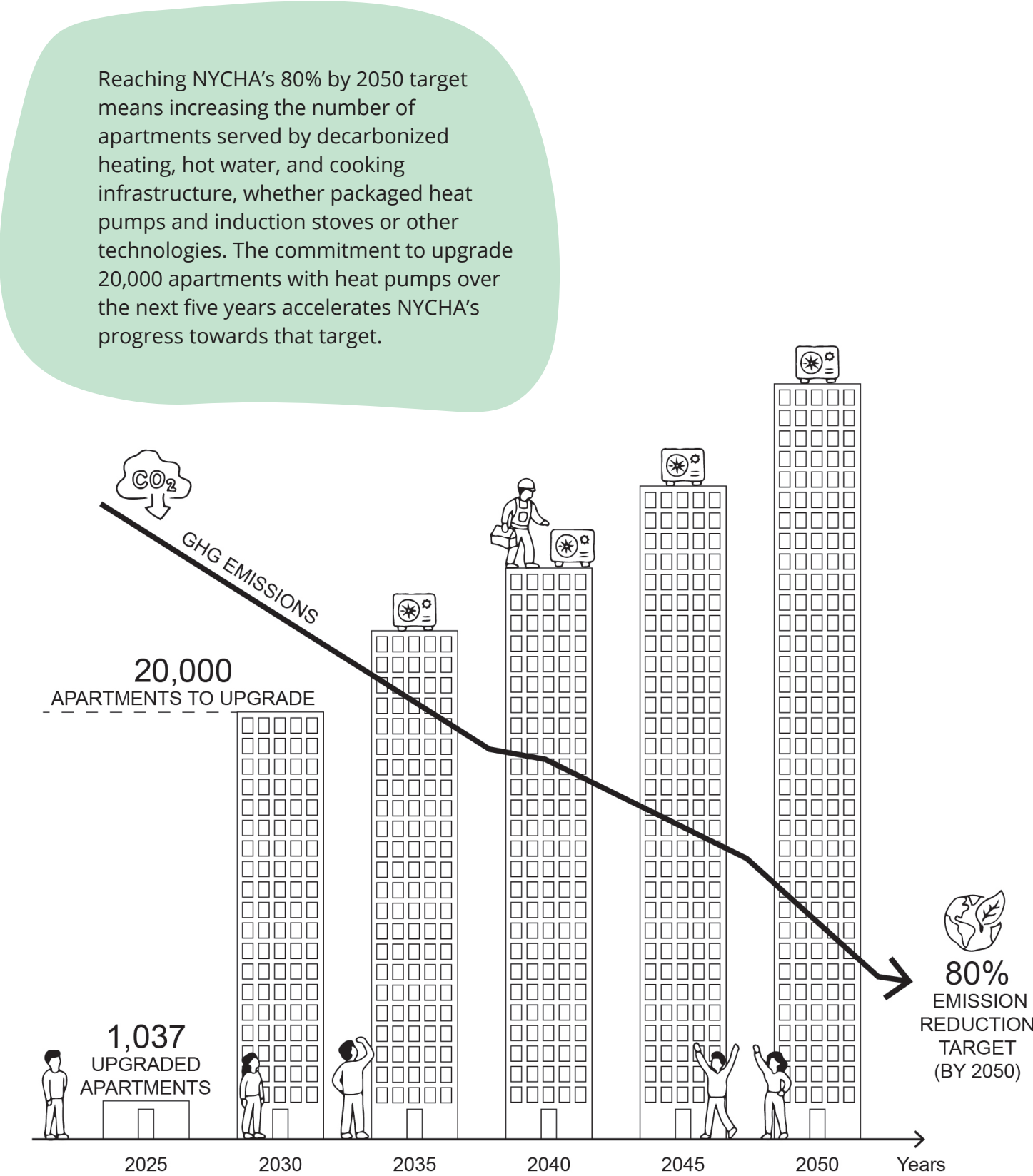
In 2014, New York City committed to an ambitious goal of reducing its greenhouse gas (GHG) emissions by 80% by 2050 – a goal referred to as “80 x 50” – with an interim target to reduce GHG emissions by 40% by 2030. Reducing emissions from buildings is central to meeting these targets, because more than two-thirds of emissions in the city come from buildings. To implement this commitment, in 2019, the City of New York passed Local Law 97 (LL97) as part of the Climate Mobilization Act. Local Law 97 requires all buildings larger than 25,000 square feet to meet new emissions limits starting in 2024, with a 40% reduction from a 2005 baseline by 2030 and an 80% reduction by 2050.²

NYCHA is subject to LL97 at a portfolio level, rather than the building level required of private owners: across all of its properties, including both Section 9 and Section 8 (PACT/Trust) properties, NYCHA must make its best efforts to reduce emissions to the overall 40x30 and 80x50 targets. Since 2021, NYCHA has made progress in charting and refining its course toward the 80x50 goal through combining continued efficiency improvements and a shift to beneficial building electrification. In 2024, NYCHA’s annual GHG emissions decreased 14.3% from the 2005 baseline. This notable progress is due primarily to efficiency gains and shifting from oil to gas for heating and hot water systems. To meet the 80x50 goal, NYCHA must reduce emissions much more quickly going forward.

The primary source of NYCHA’s GHG emissions are fossil-fuel fired boilers for space heating and domestic hot water; these systems must be replaced with efficient electric systems if NYCHA is to meet its goal. Given the long life of heating and hot water equipment, decisions made now about equipment replacement have an impact on NYCHA’s GHG emissions for decades. NYCHA has modeled expected emissions reductions to

understand the Authority’s potential pathways to its 80x50 goal. Any realistic pathway to 80x50 entails ending in-kind boiler replacements by 2040 and installing high efficiency electric systems on a wide scale. In addition, meeting NYCHA’s emissions reductions goals will be dependent on steady progress towards power grid decarbonization. NYCHA has seen the greenhouse gas emissions associated with its electric use increase since the 2021 closure of the Indian Point nuclear power plant; the full benefits of shifting to efficient heat pumps can only be realized with the fulfillment of New York State’s commitment to steadily increase clean energy supply to the grid.

²City of New York. September 2023. Getting 97 Done: A Plan to Mobilize New York City’s Large Buildings to Fight Climate Change. Accessed on December 3, 2025 from Getting_LL97_Done.pdf.



GOAL 4

Modernize waste infrastructure
at 144 NYCHA properties

PRIORITIES



Property
Physical Needs



Resident Health
and Well-being



Efficient and proper handling of waste is paramount for creating safe, attractive and pest-free communities. Over the next five years, NYCHA will build upon the substantial progress it has made in recent years toward installation of modern waste infrastructure across its properties. Priority improvements include upgrading waste yards and interior compactors and adding convenient disposal and recycling points. NYCHA aims to bring waste upgrades to a total of 144 properties by April 2031, with upgrades at 86 Section 9 properties and 58 Section 8 conversion properties.



New solutions are required to keep properties clean and store waste appropriately.

NYCHA developments generate approximately 140,000 tons of waste annually. NYCHA buildings and campuses were built with incinerators in the basement for a very different waste stream, where most of the waste was to be handled in one stream. While NYCHA replaced its incinerators years ago with trash compactors, its waste handling facilities remained inadequate to manage changed waste practices and separation of recyclables. Over the past several years, supported by NYCHA's *Waste Management Plan*, previous Sustainability Agenda commitments and the City Capital Action Plan, NYCHA has worked to update its waste management infrastructure with significant progress toward full portfolio containerization that matches current day conditions, provides flexibility for the future, and transform how staff and residents manage household waste. Continued progress is critical to outfitting all NYCHA developments with the facilities needed to manage the volume and variety of household waste generated today.

Ideally, modernized waste infrastructure at a NYCHA development includes three key components: clean, efficient waste yards that keep trash and recyclables in sealed containers and reduce pests; well-functioning interior compactors that help staff move waste efficiently from trash chutes to centralized pick-up locations; and convenient, clearly-marked disposal points that allow residents to easily dispose of each component of the waste stream they are being asked to separate.

Not every component will be within NYCHA's budget or will be feasible to install at each development, but the Authority strives to build out waste infrastructure that is as comprehensive as budgets, operational capacity, and space limitations allow at each of its properties. With each infrastructure upgrade, NYCHA aims to expand staff training to build capacity to manage recyclable materials, update waste handling procedures, and conduct resident outreach and education to ensure the proper disposal of waste through use of new equipment.

STRATEGY 4.1

Build waste yards at 87 properties

A clean, efficiently designed waste yard that separates and containerizes material streams generated at NYCHA is critical to achieving higher rates of recycling and reuse, and to reducing the prevalence of pests at NYCHA developments.

Key components of an upgraded waste yard include:

- **Auger compactors that combine trash and bulk waste**, replacing old hydraulic compactors and open-top containers for bulk waste that attract pests and encourage illegal dumping. These augers handle a greater volume and mass of waste, and their electric motors require less maintenance and are more resilient in cold weather than hydraulic compactors. The increased efficiency reduces the number of truck trips made by the Department of Sanitation (DSNY), improving air quality at the properties and surrounding neighborhoods, and the material shredded by auger compactors takes up less space at landfills. Auger compactors are designed with building management system compatibility for remote monitoring.
- **Shipping containers for recyclables storage**. Two-thirds of NYCHA residents' waste is recyclable material. To help staff keep that material out of the landfill, new waste yards include dedicated shipping containers to store large volumes of recycling. While trash is picked up in containers from inside the waste yard, most recycling must be stored until it can be collected curbside by DSNY trucks once a week. Shipping containers provide clean, protected storage and are accessible by NYCHA and DSNY trucks. The yards are designed to minimize staff from handling material multiple times and filling the sidewalk with piles of bags, avoiding set out at the curb in coordination with DSNY.

- **Roll-on-roll-off containers for recycling, including cardboard compactors or augers.**

After a successful pilot in collaboration with DSNY where under-used trash compactors were converted to manage cardboard, new waste yards at larger campuses will furnish auger compactors to compact and store cardboard as well as large roll-on-roll-off containers for metal, glass and plastic recycling. In addition to reducing manual handling of recycling, these cardboard augers and roll-on-roll-off metal, glass and plastic containers also provide NYCHA with valuable data, including the weight of material collected from each container. Data like this helps NYCHA track progress toward recycling goals, which is not possible when recycling is picked up curbside with other residential properties.

A keystone to new waste yard designs and to removing open containers at NYCHA properties is making mattress recycling permanent. NYCHA has established a mattress recycling program at 44 properties, collecting more than 34,000 items weighing more than 1670 tons over the program's duration, and is looking for ways to establish long-term contracts or agreements with DSNY to make it permanent. Each new waste yard will include storage for mattresses to enable the program to expand.

As of April 2026, new waste yards with auger compactors and other equipment are completed at eight properties, an additional 17 properties have waste yards in construction, 36 have waste yards in procurement, and 34 are in design or planning. In the next five years, NYCHA aims to have built new or upgraded existing waste yards at 87 developments: 97 waste yards will be renovated or built across 68 traditional public housing developments, and approximately 23 waste yards across 19 developments will be renovated or built through Section 8 conversions.

STRATEGY 4.2

Replace 909 interior compactors that are past their useful life

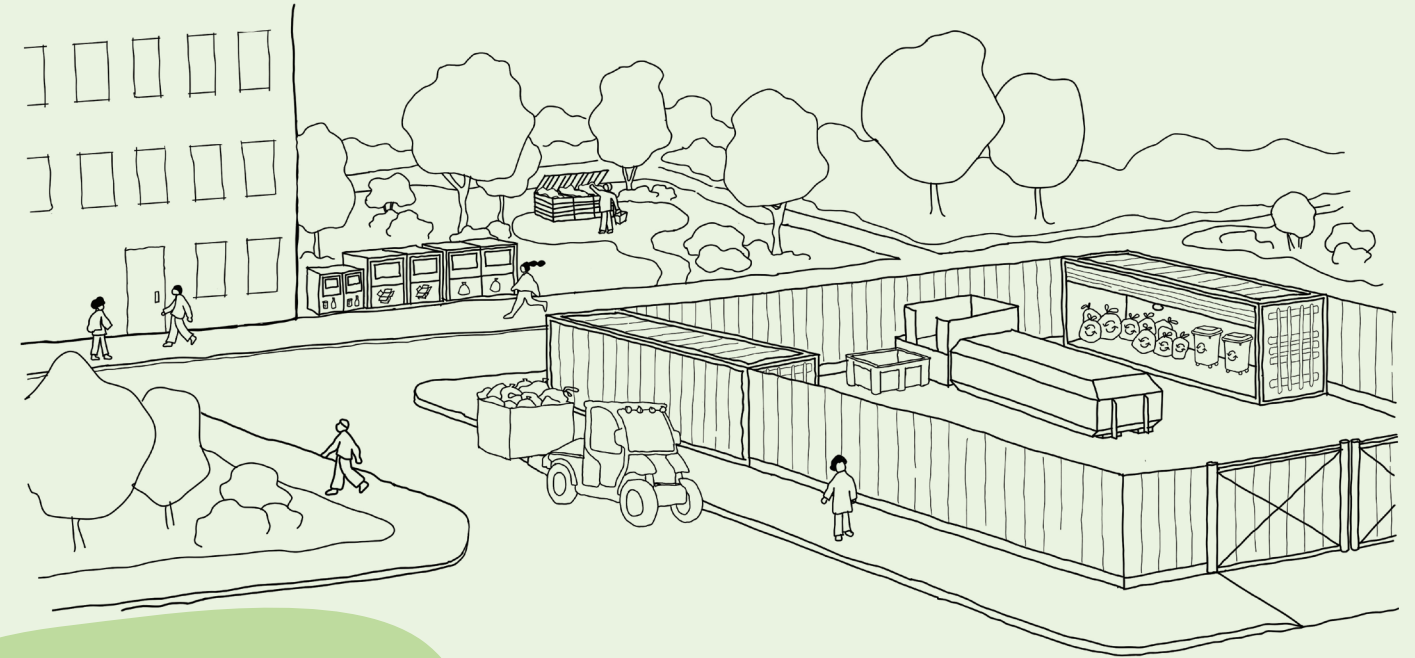
Trash compactors are located at the bottom of garbage chutes in NYCHA buildings. They make trash disposal convenient for residents and consolidate material for NYCHA caretaker staff to transport by compacting waste into bags. Older compactors at NYCHA developments experience frequent outages, slowing down the removal of waste from buildings and making it more difficult to eliminate pests. Since the release of the City Capital Action Plan, NYCHA has been working to replace interior compactors, restore the rooms that house them, and connect them to the properties' building management system so outages and compaction data can be viewed remotely, improving repair response times and allowing NYCHA to proactively maintain the compactors.

As of April 2026, 603 interior compactors have been fully replaced along with other compactor room improvements. Over the next five years, NYCHA will complete 570 additional interior compactor renovations within traditional public housing developments and approximately 339 interior compactor rooms will receive new equipment and updated rooms as part of Section 8 conversions.

STRATEGY 4.3

Build facilities that make recycling and organics diversion more convenient for residents and staff

To increase recycling and divert reusable materials out of the waste stream at NYCHA, recycling infrastructure must be built out further and drop-off must be convenient for residents. NYCHA is working to install facilities that make it easy for residents to drop off paper and cardboard; metal,



New waste yard designs include large multi-stream waste stations located by building entrances, as well as dedicated areas to drop-off and store other waste streams.

glass, plastic, and cartons; organics; textiles; and e-waste. Where possible, NYCHA is adding the following elements to campus waste facilities:

- **Multi-stream waste stations for recyclables near building entrances.**

The Authority has begun installing new waste stations that have large openings and are an appropriate size to collect the volume of cardboard, metal, glass, plastic and cartons that NYCHA residents generate, along with bulky trash that does not fit in garbage chutes. These stations have received rave reviews from residents at the four developments where they have been installed so far, and have allowed staff to more easily transport bulky trash and recyclables to waste yards or curbside pickup locations. After a successful pilot at these four locations, NYCHA

will complete the installation of an additional 30 recycling stations at 5 developments in 2026. Over the next five years, NYCHA will strive to identify funds to support the goal of continuing to roll these waste stations out, aiming to establish a pace of 50 waste stations at approximately eight developments each year.

- **Textile and electronic waste drop-off points.**

Textiles and electronic waste are 6% of NYCHA waste. Electronic waste, including lithium-ion batteries, increases the risk of fire in chutes and compactors and require separation from trash. NYCHA will continue to increase awareness and opportunities to properly recycle these materials in coordination with DSNY. New waste yard designs include storage for electronic waste, helping streamline staff participation in the DSNY

electronic waste recycling program. In 2026, NYCHA piloted a textile recycling bin, also in partnership with DSNY, and will use the learnings to increase access to textile drop-offs on NYCHA property.

- **Facilities for organics drop-off or processing.**

All of NYCHA's developments divert landscaping waste through curbside collection from DSNY, on-site mulching using lawnmower mulching kits, or composting through partnerships with Green City Force and Compost Power. Green City Force is NYCHA's partner at several campus farms and Compost Power is a business started by a former NYCHA resident and Green City Force alumnus. Food scraps collection at NYCHA campuses occurs through access to curbside "Smart Bins" serviced by DSNY, DSNY-issued brown bins at some small developments, and on-site food scraps processing led by Green City Force and Compost Power at a few developments. In addition to managing food scraps, on-site compost programs offer broader benefits including green jobs, ongoing resident education and support for NYCHA grounds staff with mulch for trees and farms and gardens. NYCHA is working to ensure all residents have convenient options to divert their food scraps from landfill through the expansion of these options and new pilots. New pilots must be feasible for NYCHA to maintain, like a planned test to partner with community center operators on NYCHA properties to host food scraps drop-off sites.

Increasing the convenience of handling recycling and increasing training for NYCHA staff is also critical to improving the Authority's performance in diverting materials from landfill. NYCHA's Recycle First campaign, rolled out starting in 2021 in partnership with DSNY, prioritizes recycling in daily operations and provides staff training on collections protocol and data collection for better reporting and tracking of progress toward waste reduction goals. Since launching in 2021 and completing its roll out to all properties in 2025, NYCHA has

increased the annual diversion rate of cardboard, metal, glass and plastic recyclables from landfill by more than 10 times. NYCHA will continue to support staff training and protocols as new waste yards and waste infrastructure are rolled out.

ADDITIONAL OPPORTUNITIES

Advanced Waste Management Systems

NYCHA continues to look for opportunities to address the multifaceted challenge of collecting waste from older buildings in campus-style properties. Where buildings and grounds are undergoing comprehensive rehabilitation, there are opportunities to incorporate integrated solutions, including: retrofitting trash flues with steel chute liners and hopper doors that are sized for modern waste but prevent large material from clogging chutes; pneumatic waste systems which move waste automatically by connecting individual building chutes to a central collection point via an underground pipe network; undercounter storage for sorting recycling and trash in renovated kitchens; lobby recycling rooms; and additional containerization opportunities offered by DSNY. At all sites, NYCHA's goals are to make the properties cleaner and make waste management practices safer and more efficient for staff. Incorporating wheeled carts and upgrading the equipment used to move material from resident drop-offs to centralized waste yards supports these goals.



A new multi-stream waste station at Wagner Houses in Manhattan.

GOAL 5

Protect 146 buildings from climate-related disruptions

PRIORITIES



Property
Physical Needs



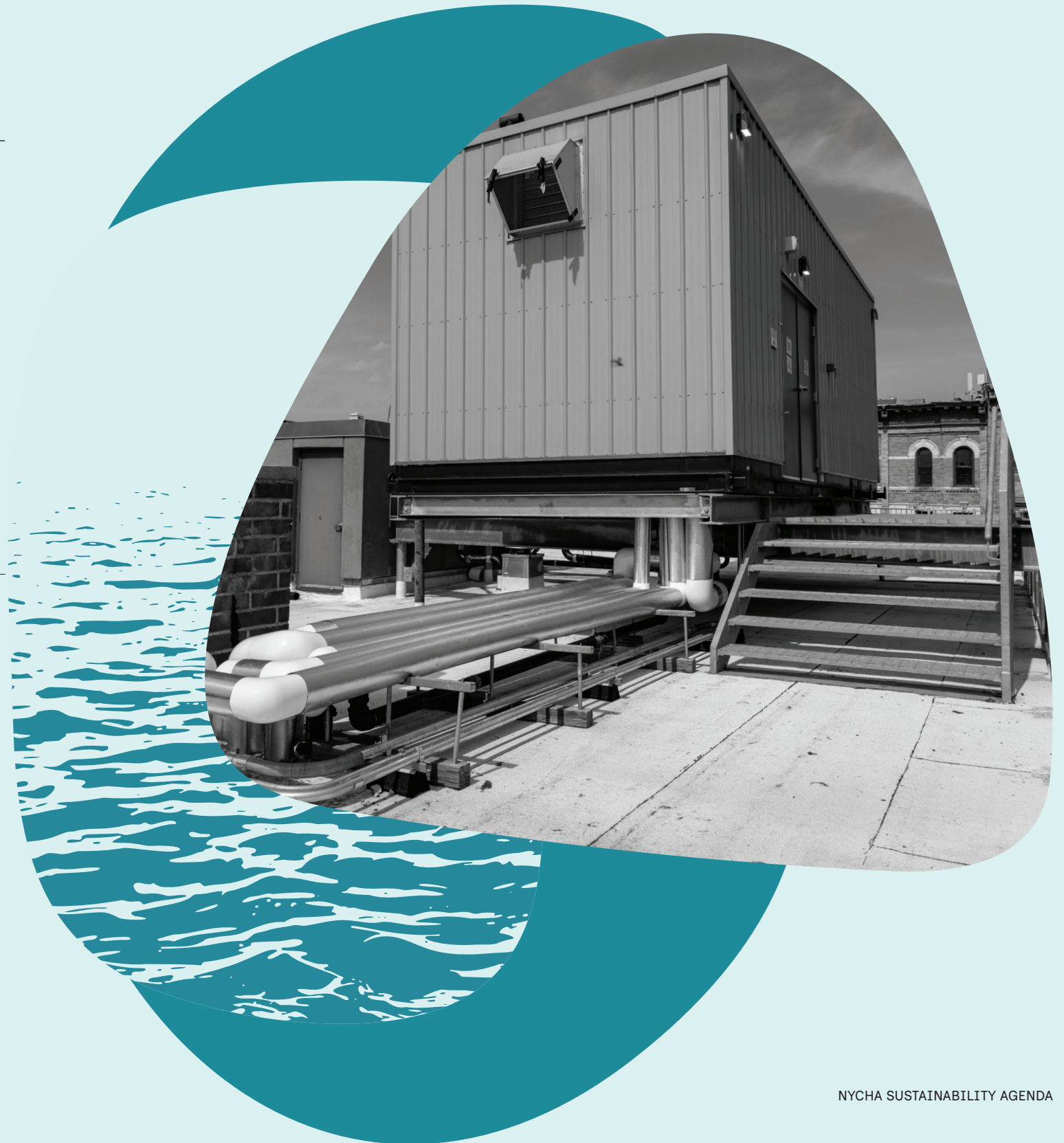
Resident Health
and Well-being



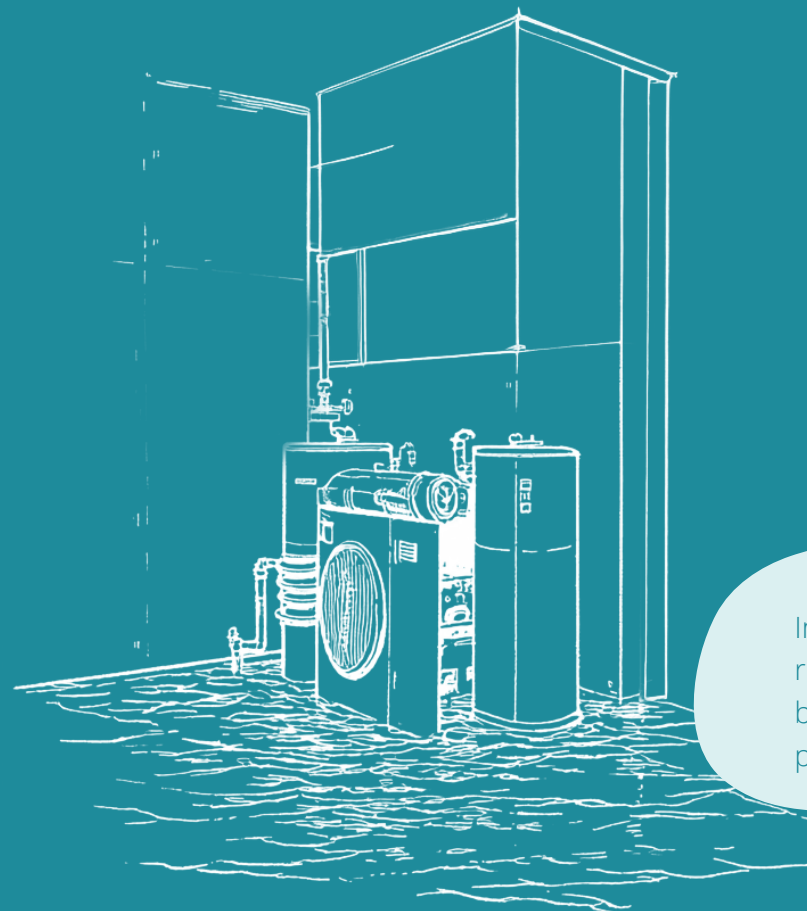
Energy & Water Use &
GHG Emissions



Resiliency to Flooding



Protecting NYCHA properties from climate hazards has been part of the Authority's work for over a decade, and its presence in this agenda ties in the immense amount of work done to date while addressing new, emerging climate hazards. Hurricane Sandy's profound impacts to NYCHA developments and residents resulted in a major disaster recovery and resilience program at the 35 most severely damaged developments, and increased NYCHA's focus on the importance of addressing additional hazards. Over the next five years, NYCHA aims to protect 146 more buildings from climate-related threats, with upcoming work focused on rainwater-driven flooding and extreme heat. Fifty Section 9 properties and 57 Section 8 properties affected by Hurricane Ida will receive flood protection, and 39 Section 9 buildings will receive elevator upgrades to mitigate the effects of extreme heat on elevator service.



In buildings vulnerable to flood risk, critical infrastructure must be raised to avoid climate-driven power outages.

NYCHA's efforts to restore properties damaged by Hurricane Sandy, and to prevent future coastal storms from wreaking similar damage, has allowed the Authority to learn what kinds of flood protections best serve NYCHA residents and operational staff. NYCHA's priorities in flood protection are to focus on the critical infrastructure that residents rely on most – namely, heating and hot water systems and elevators. NYCHA prioritizes using flood protection strategies that simultaneously enhance properties while delivering benefits for residents every day. NYCHA also prioritizes protections that are passive – protecting residents and infrastructure without needing to be deployed by staff before a storm – wherever possible.

The nature of NYCHA's resiliency work has changed since Sandy: threats from stormwater have become a day-to-day reality rather than a theoretical future, with extreme flooding from the remnants of Hurricane Ida causing major damage at 13 NYCHA developments in 2021, and several smaller extreme rain events since then causing disruptions and damages that were unheard of in New York City just a few years ago. The reality of extreme heat danger has also continued to become clearer, with New York City's Department of Health and Mental Hygiene documenting 570 heat-exacerbated deaths in 2025, part of a consistent trend of worsening health impacts attributable to heat over time.³

NYCHA's resiliency strategy is driven by the Authority's understanding of the unique and heightened vulnerabilities of its properties and its residents. At least half of NYCHA's buildings will lie in areas vulnerable to coastal flood risk, stormwater flood risk, or both by 2050. What's more, the impacts of climate hazards, particularly the health effects of extreme heat, fall disproportionately on low-income people of color, who make up the majority of NYCHA residents. The need to scale up work to increase the Authority's protections from climate hazards is clear.

³2025 Heat Mortality Report | Environment and Health Data Portal

NYCHA's implementation plans are three-fold: first, the Authority will continue to work hard to secure funds to support disaster recovery, advocating for additional funding to mitigate future hazards to the greatest extent possible. This was the case after Sandy; similarly, NYCHA has worked with City, State, and Federal partners to secure disaster recovery funding to support comprehensive restoration and hazard mitigation work at the 13 properties worst-impacted by Hurricane Ida. Second, NYCHA will look to maximize its participation in competitive grant programs, using detailed analysis of the risks each of its properties faces to compete for Federal, State, and philanthropic funds available to support climate resiliency. Finally, NYCHA will standardize and scale its resiliency by considering present and future flood risk, the danger of extreme heat, and the risk of climate-driven power outages into its design and construction scopes within the Section 9 portfolio and in Section 8 conversions.

STRATEGY 5.1

Implement flood protections at 107 buildings affected by Hurricane Ida

NYCHA's approach to flood protection includes a range of strategies, selected based on a property's characteristics and risk, with the goal of ensuring resident safety and avoiding prolonged disruption to building services after significant floods. Flood protection measures include elevating or dry floodproofing critical building equipment, installing retractable or temporary flood barriers, adding backwater valves to waste line plumbing systems, and landscape features that convey stormwater away from buildings. Elevating heat and hot water systems out of flood-prone basements is facilitated by the use of new, compact heat pump technology - reducing costs, complexity and alleviating space constraints for this important passive flood protection strategy.



IDA RECOVERY
AND RESILIENCE
PROJECTS

- 1. 1100 Teller
- 2. 1471 Watson
- 3. Bronx River
- 4. Butler
- 5. Claremont Rehab 4
- 6. Ingersoll
- 7. Latimer Gardens
- 8. Leavitt 34th St
- 9. Mckinley
- 10. Moore
- 11. Sotomayor
- 12. Webster
- 13. Woodside



LANDSCAPE-BASED
STORMWATER
MANAGEMENT
PROJECTS

- 1. Breukelen
- 2. Clinton
- 3. Jefferson
- 4. Sheepshead Bay
- 5. South Jamaica

*Butler and Woodside Houses
are the site of Ida Recovery and
Resilience and Landscape-Based
Stormwater Management Projects*



SANDY RECOVERY
AND RESILIENCE
PROJECTS

- 1. Astoria
- 2. Baruch
- 3. Beach 41st Street - Beach Channel Drive
- 4. Campos Plaza II
- 5. Carey Gardens
- 6. Carleton Manor
- 7. Coney Island
- 8. Coney Island I (Site 1b)
- 9. Coney Island I (Site 8)
- 10. Coney Island I (Sites 4 & 5)
- 11. East River
- 12. Gowanus
- 13. Gravesend
- 14. Haber
- 15. Hammel
- 16. Isaacs
- 17. La Guardia
- 18. Lavanburgh Homes
- 19. Lincoln
- 20. Lower East Side Rehab (Group 5)
- 21. Metro North Plaza
- 22. New Lane Area
- 23. Ocean Bay Apartments (Bayside)
- 24. Ocean Bay Apartments (Oceanside)

- 25. O-Dwyer Gardens
- 26. Rangel
- 27. Red Hook East
- 28. Red Hook West
- 29. Redfern
- 30. Riis
- 31. Riis II
- 32. Smith
- 33. Surfside Gardens
- 34. Two Bridges Ura (Site 7)
- 35. Wald



STRATEGY 5.2

Implement Automatic Voltage Regulators (AVR) program at 39 buildings

Automatic voltage regulators (AVRs) are electronic devices that maintain steady voltage for electrical equipment when supply from the utility provider fluctuates. Installing them on NYCHA elevators ensures that residents, especially those in senior and high-rise buildings, have continuity of elevator service during brownouts. Brownouts occur periodically throughout the year, particularly during summer heat waves when peak electrical demand across the city is highest. Interruptions in elevator service limit mobility and can result in people getting trapped or staying indoors in uncooled apartments for prolonged periods of time when it is excessively hot. These conditions lead to potentially dangerous situations, especially for senior populations.

In the next five years, NYCHA will install AVRs at a total of 39 buildings that are most vulnerable to elevator interruption due to voltage drops.



STRATEGY 5.3

Add landscape-based stormwater management to vulnerable properties

In addition to building-level flood protections funded by federally declared disasters, NYCHA is working to renovate its green spaces to be multifunctional, providing renewed and revitalized spaces for resident use that also function as stormwater management systems during rain events. NYCHA collaborated with the Department of Environmental Protection to design and install the city's first stormwater management project at South Jamaica Houses, and as of April 2026, has one additional project in construction, one in procurement, and four in design.

STRATEGY 5.4

Explore expansion of resilient power supply at NYCHA using battery energy storage

Battery energy storage systems (BESS) have become a key component of electric grids both around the world and in New York City, where they support peak grid demands and serve as a cleaner energy source than gas “peaker” plants that emit harmful pollutants. NYCHA has begun to explore the possibility of installing BESS at its properties in ways that maximize benefits to residents. BESS can be deployed to provide energy continuity at NYCHA properties during service disruptions to the grid, which is particularly critical for residents who need access to indoor cooling and power for medical devices, or feed directly to the grid to reduce the likelihood of such disruptions. Planning for BESS at NYCHA builds on the installation of back-up power supply for properties that were damaged by Hurricane Sandy and at some community centers renovated in the PACT program.

ADDITIONAL OPPORTUNITIES

Urban Forest Stewardship

NYCHA's trees are a great asset to its residents and the city as a whole: the Authority's 1,000 acres of tree canopy provide shade, comfort, and beauty in addition to carbon sequestration, air pollutant removal, reduced heat island impact, and stormwater mitigation benefits. In neighborhoods with clusters of NYCHA developments, NYCHA is often the primary source of tree canopy cover neighborhood-wide, making NYCHA trees particularly important in neighborhoods with less access to large parks and other open spaces. New York City has set a target for achieving 30% tree canopy cover by 2040, and the health of NYCHA's trees is critical to this goal. However, NYCHA has no full-time staff dedicated to tree care. New York City's inaugural Urban Forest Management Plan calls for transitioning tree maintenance management on NYCHA properties to NYC Parks. This would allow Parks to perform tree care across



all NYCHA campuses, consistent with the standards the agency uses for trees in parks and on streets. NYCHA and NYC Parks are piloting this approach with grant funding secured in 2025.

Resilience Hubs

NYCHA's community centers and senior centers are trusted, public-facing spaces that play an important role in supporting residents and strengthening neighborhoods. These facilities also present opportunities to serve as resilience hubs—places where residents can access resources, information, and support before, during, and after climate-related disruptions. A recent FEMA-funded study identified potential sites and building retrofits needed to equip NYCHA community centers beyond their current capacity. The study also recommended programming to strengthen community preparedness and climate resilience. Provision of backup power at community or senior centers is a PACT Program requirement, furthering opportunities for resilience hubs.

Looking ahead, NYCHA will work with the Mayor's Office of Climate and Environmental Justice and other partners to identify funding sources and collaborative opportunities to provide resilience hub features at community centers and senior centers across the portfolio.

GOAL 6

Pilot and scale-up Waste Plumbing Initiative at 15 properties

PRIORITIES



Property
Physical Needs



Resident Health
and Well-being



Energy & Water Use &
GHG Emissions



Deteriorated waste plumbing systems are the largest driver of mold and leaks in NYCHA buildings, create significant operating costs each year, and have remained largely unaddressed due to the high costs of comprehensive renovation required to address these needs.



Implementing this goal will save water and address the persistent challenge of mold, while creating more modernized bathrooms for NYCHA residents.

Replacing the entire plumbing lines that are the most frequent causes of leaks is a more holistic and proactive way of addressing leaks, rather than repairing pipes when leaks occur. By targeting the plumbing lines with the worst performance, NYCHA can make efficient use of scarce resources, addressing the root cause of mold comprehensively and improving building quality, while replacing bathroom and kitchen fixtures at the same time. Complementing NYCHA's Building Line Initiative – which will continue to target high-priority individual building lines going forward – NYCHA will now implement a Waste Plumbing Initiative which will focus on multi-line, multi-building scopes of work at developments with the highest concentrations of deteriorated waste lines. Implementing this goal will save water and address the persistent challenge of mold, while improving kitchen and bathroom conditions for NYCHA residents. This program will be implemented at 15 Section 9 properties.

STRATEGY 6.1

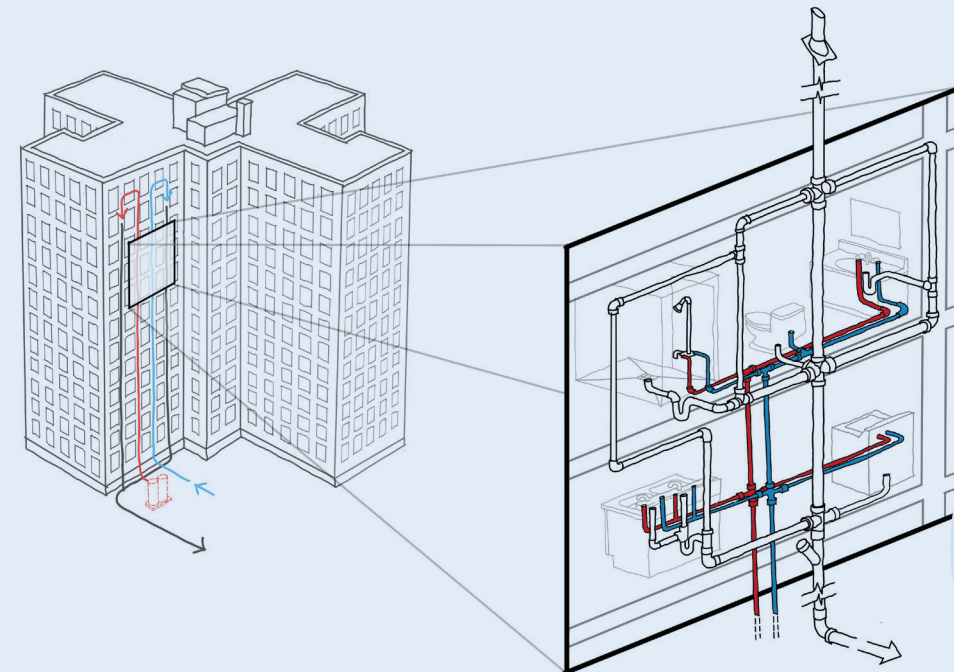
Pilot Waste Plumbing Initiative to demonstrate feasibility of targeted approach

In 2025, NYCHA solicited bids for design-build services to replace individual and groups of plumbing lines, while also performing bathroom renovations and fixture replacements. This pilot will take place at Wyckoff Gardens, Douglas I and II, and Queensbridge Houses. The goal of the pilot is to demonstrate how invasive renovations can be done in a cost-effective way and with the least disruption to residents, along with reductions in leaks, water usage, mold and resident discomfort.

STRATEGY 6.2

Scale Waste Plumbing Initiative to apartment lines most in need

After the initial pilot and its evaluation, NYCHA will expand the Waste Plumbing Initiative to apartment lines that are experiencing frequent leaks, aiming to reach 15 developments over the next five years.



Replacement of NYCHA's most deteriorated waste plumbing lines is a critical way to save water and reduce leaks and mold.

GOAL 7

Provide 150 public electric vehicle charging stations in NYCHA parking lots

PRIORITIES



Increased Funding
For Properties



Energy & Water Use &
GHG Emissions



NYCHA's parking lots provide the opportunity to expand access to EV charging for underserved neighborhoods, helping to fulfill the City of New York's 2023 PlaNYC commitment to ensure that every New Yorker lives within 2.5 miles of a fast-charging EV hub by 2035.



In addition to expanding EV access, developing EV charging stations in partnership with third-party providers will create an opportunity to generate revenue for NYCHA properties.

NYCHA's portfolio includes more than 100 off-street parking facilities with many unpermitted spaces, which NYCHA believes can play a unique role in supporting the expansion of EV charging infrastructure in New York City. This can help meet the existing demand for EV charging and spur future adoption of EVs by NYCHA and non-NYCHA residents, both of which are critical for meeting the City's and State's goals for transportation electrification, air quality, and equitable access to clean energy technology. In 2025, NYCHA released a request for information to assess interest in and ideas for how EV charging could be implemented at NYCHA, including space and infrastructure requirements, financial and partnership models, and product specifications. NYCHA used the information received through this process as input for shaping a solicitation, to be released in the spring of 2026, for proposals from partners who want to own and operate EV charging projects at NYCHA.

This goal will result in 150 EV charging stations at Section 9 properties. PACT partners are also encouraged to incorporate EV charging into their projects and NYCHA can support PACT partners in deployment.

STRATEGY 7.1

Develop partnerships with charging providers to install EV charging stations in underutilized NYCHA parking lots and generate revenue to support properties

NYCHA will work with partners, identified through a solicitation, who want to own, finance, design, install, operate, monitor, and maintain Level 2 and Direct Current Fast Charging (DCFC) infrastructure for EVs in NYCHA parking lots. These charging stations will encourage NYCHA residents to adopt electric vehicles, serve as a resource for NYCHA and non-NYCHA residents, including the many for-hire vehicle drivers in the city, and generate lease revenue for the Authority. Respondents to the solicitation will be evaluated based on the strength of their qualifications and proposed approach to construction and operations, their proposal for generating financial benefits to NYCHA through lease payments and revenue sharing, and benefits for NYCHA residents through job training and hiring.

Resident engagement will be an integral part of this work. Some resident leaders are enthusiastic about the potential of EV charging for generating funding for other priorities, while others have expressed concerns about the impacts of EV charging. NYCHA will continue to engage residents in the EV partnership development process to address concerns.

STRATEGY 7.2

Work with DCAS to expand charging opportunities for additional NYCHA properties

NYCHA anticipates that chargers installed by partners through a competitive solicitation will expand access to and distribution of EV charging throughout the city but may not provide charging at all available NYCHA parking lots. To increase access to as many sites as possible, NYCHA will work with the City's Department of Citywide Administrative Services (DCAS) to install City-owned EV chargers at available sites not selected by private partners. Working with DCAS will directly support the City's goals of ensuring that all New Yorkers live within 2.5 miles of a fast-charging EV hub by 2035 while providing additional revenue to the Authority.

ADDITIONAL OPPORTUNITIES

Micromobility

In the last few years, NYC has experienced a boom in electric micromobility users as a means of employment, travel, and leisure. The growth of app-based food delivery companies and options for low-cost electric mopeds and e-bikes have created parallel markets for cheap, unsafe batteries that can cause or contribute to dangerous fires. NYCHA issued an electric micromobility charging policy in 2024 that acknowledged this critical mode of travel for residents while promoting and requiring safe charging practices, and in 2026 will look for ways to install safe charging stations for e-mobility equipment. NYCHA continues to coordinate with NYC Department of Transportation to ensure that any micromobility charging projects are aligned with a planned citywide approach and strategy for expanding micromobility charging infrastructure.



NYCHA SUSTAINABILITY AGENDA



NYCHA SUSTAINABILITY AGENDA

GOAL 8

Achieve NYCHA's 30 MW solar installation goal

PRIORITIES



Property
Physical Needs



Resident Health
and Well-being



Energy & Water Use &
GHG Emissions



NYCHA has established itself as a leader in multifamily and community shared solar, a model for solar development that provides benefits to NYCHA properties and residents while increasing New York City's overall renewable energy supply. In the next five years, NYCHA will complete the 30 megawatt (MW) goal set in the 2021 Sustainability Agenda, with 23 MW installed on Section 9 properties and 7 MW installed on Section 8 properties.

NYCHA contributes to NYC's overall renewable energy supply by hosting community shared solar on roofs across all 5 boroughs.

To date, 6.8 megawatts of solar have been installed on NYCHA rooftops, with 12.5 MW in design or construction, through NYCHA's Accelerating Community Empowered Shared Solar (ACCESSolar). ACCESSolar is a public-private partnership model whereby NYCHA leases roof space—an underutilized resource at NYCHA—for installation of arrays owned by solar companies and project developers. These projects create training and employment opportunities for NYCHA residents, and have led to 41 residents being hired on solar installations and 73 NYCHA residents being enrolled in solar job training programs since 2019.

STRATEGY 8.1

Implement existing plans to expand community shared solar on Section 9 roofs and continue to provide new lease opportunities as market conditions allow

In May 2025, NYCHA released an ACCESSolar solicitation for proposals from development teams to install solar arrays on 73 NYCHA buildings

across eight developments in Brooklyn and the Bronx. NYCHA has made a lease award for the Brooklyn sites but retains solar-eligible roofs in the Bronx and at other properties receiving roof replacements. As market conditions allow, NYCHA will solicit for additional rooftop leases through the ACCESSolar program.

STRATEGY 8.2

Integrate solar into Section 8 conversions where feasible

Many properties that have converted or will convert to Section 8 receive new roofs, making them excellent candidates for community solar installations. NYCHA will work with PACT partners to facilitate community solar solicitations and leases to increase generation of renewable energy at these sites and increase access to renewable energy sources for New Yorkers through community shared solar purchasing agreements.



GOAL 9

Create economic opportunity for at least 1,300 NYCHA residents through NYCHA sustainability work

PRIORITIES



Resident Health
and Well-being



Beyond health, resilience, and environmental benefits, the economic opportunities created by sustainability investments have been widely heralded. Sustainability jobs are already here in New York City and at NYCHA, and they will continue to grow as the Authority and City advance their commitments to electrification and resiliency.



NYCHA will continue to train and connect residents to green jobs, particularly building retrofit and electrification efforts taking place on NYCHA properties.

The NYC Green Economy Action Plan estimates that by 2040, there will be nearly 400,000 “green jobs” in New York City, including both traditional occupations that are necessary to complete relevant projects and jobs with companies entirely focused on resiliency and sustainability. Building retrofit and electrification efforts account for the largest share of these jobs, and include traditional trade occupations such as construction laborers, maintenance workers, HVAC mechanics, carpenters and electricians. NYCHA will work to ensure that as many of its residents as possible are able to benefit from the economic activity created by the Authority’s investments in its own sustainability work.

STRATEGY 9.1

Train 1,000 NYCHA residents in building operations and clean energy technologies

NYCHA creates job training opportunities for residents in the fundamental skills necessary for sustainability jobs and projects. Training happens through programs that NYCHA manages or supports, such as the Clean Energy Academy and the NYCHA Resident Training Academy. NYCHA also connects residents to trainings offered by community-based, workforce development initiatives throughout the five boroughs that rely on NYCHA to recruit residents for their training programs. Partners who offer trainings related to the traditional trades and the emerging occupations and skillsets for sustainability jobs include Green City Force, St. Nick’s Alliance, The HOPE Program, and Solar One. For some residents, these trainings lead to jobs at NYCHA or on NYCHA projects; for others, these trainings provide entry into the building trades and occupations that are part of the growing sustainability economy and labor market beyond NYCHA.

STRATEGY 9.2

Connect at least 200 NYCHA residents to employment opportunities on NYCHA sustainability projects

NYCHA requires that 25% of contractor labor hour on capital projects are completed by Section 3 workers, in line with HUD rules, which includes NYCHA residents and other low-income New Yorkers. NYCHA works to ensure that its contractors can access a pipeline of qualified NYCHA residents to employ on their contracts. Sustainability projects require a mix of occupational skill sets, including traditional trades like carpentry, electricity, and plumbing. NYCHA’s investments in training for residents help grow the pipeline of residents with the necessary skills to work on sustainability and other capital projects. In the next five years, NYCHA will work to increase the number of full-time equivalent jobs by increasing labor hours by NYCHA residents on sustainability projects.

STRATEGY 9.3

Support 100 NYCHA resident greening champions

In partnership with the Public Housing Community Fund, NYCHA works to empower residents as agents of change in their own communities, with annual NYCHA Climate Action Grants given to resident-led projects that advance local sustainability solutions such as recycling education and outreach, environmentally-focused art workshops, and community garden expansions.

RESIDENT CLIMATE ACTION GRANTS

The Climate Action Grant Program is a program led by the Public Housing Community Fund that supports resident-led climate action and sustainability projects that contribute to NYCHA's sustainability goals. The program launched in 2022 and has made 65 grants to date through four rounds of funding. In April 2026, NYCHA, the Public Housing Community Fund and partner The New York Climate Exchange, announced the fourth round of grants with awards to 35 NYCHA resident-led initiatives in all five boroughs.

The 2026, grants ranged from \$1,500 to \$15,000 with different levels of support corresponding to project stage and scope: 1) **Seed Grants**, for early-stage ideas or one-time projects meant for grantees to test ideas, take first steps or try something new; 2) **Growth Grants**, for more fully-formed project ideas, whether new or already underway, that need additional resources, coordination, or capacity to reach their full potential; and 3) **Sustain Grants**, for existing projects or organizations that have shown impact focused on long-term sustainability and community benefit.

These grants enable NYCHA residents to take direct action and result in tangible improvements in the NYCHA communities, while fostering a new generation of environmental stewardship leaders and advocates. Together, their projects showcase a wide variety of strategies for

advancing sustainability and resilience at NYCHA. Representative projects from recent years include:

- Inner City Green Team, a nonprofit organization founded and led by a NYCHA resident, is leading a community-based, door-to-door recycling and zero-waste model at the Mott Haven Houses in the Bronx, empowering youth and adults to lead waste reduction efforts in their own neighborhoods.
- A community-led project called Justice Blooms is transforming an underused green space at Breukelen Houses in Brooklyn into a garden for growing food, supporting native plants and pollinators, and providing environmental education (*photo, bottom right*).
- A resident-led tree stewardship and climate resilience initiative is expanding green infrastructure through new planters, tree care, and public art at the Manhattanville Rehab Houses.
- Repurposed Life, a nonprofit organization founded by a NYCHA resident, collects furniture and appliances that would have gone to the landfill and distributes them to NYCHA residents. Beds, desks, chairs, filing cabinets, and appliances all find a second life that makes residents feel more comfortable and organized in their homes and helps advance the City's zero waste goals (*photo, top right*).



NYCHA FARMS AND GARDENS

NYCHA's Farms and Gardens program is a critical component to the Authority's green space infrastructure and supports resident-led initiatives that produce greener, healthier, safer, and more deeply engaged public housing communities. The program generates multiple benefits including fresh food access, local stewardship and leadership development, and community programming.

In 2025, NYCHA worked with 10 external partner organizations to provide technical assistance to 113 resident-led gardens and help to build or substantially renovate 24 gardens. NYCHA also collaborated with partners Green City Force, New York Botanical Garden Bronx Green-Up and Red Hook Initiative to operate nine urban farms – Red Hook Farms located at Red Hook Houses, and sites at Howard, Bay View, Wagner, Forest, Mariner's Harbor, Astoria, Pink, and

Castle Hill Houses. Together, these farms produced and distributed more than 34,600 pounds of fresh produce to residents, collected 155,000 pounds of food scraps for composting, and held nearly 500 community activities including farm stands and produce distributions, garden club celebrations, educational workshops, and hands-on gardening and harvesting events that brought together residents of all ages, at Ravenswood, South Beach and Marlboro Houses.

NYCHA continues to seek funding to sustain, strengthen, and grow existing and new farms and gardens. Support in the next five years will help NYCHA build five new urban agriculture sites, complete 25 new garden builds or renovations a year, cultivate and distribute at least 40,000 pounds of fresh produce for NYCHA residents each growing season, and continue to activate farms and gardens with dynamic, intergenerational programming.





III. Financing Innovation

The need for capital funding to address decades of disinvestment in NYCHA has been a theme of NYCHA's Sustainability Agendas since 2016. According to the most recent physical needs assessment, NYCHA needs \$78 billion to address its capital needs. Achieving the goals laid out in this agenda will cost an estimated \$2.46 billion for Section 9 properties, and a similar amount through Section 8 conversions. As of this writing, NYCHA has secured funding commitments of \$1.27 billion for achieving this agenda's goals through Section 9 capital projects, which along with anticipated Section 8 conversions will fully finance five of the agenda's nine goals. The financing is a combination of: Federal, State and City capital appropriations, disaster recovery funds and competitive grants; tax credits and private debt and equity investments; Energy Performance Contracts (EPC); and public-private partnerships.

This leaves a funding gap of \$1.19 billion across four goals, specifically for NYCHA's Section 9 properties: installation of heat pumps including domestic hot water and window renovations (\$650 million), installation of induction stoves (\$35 million), scale-up of waste plumbing renovations (\$500 million), and creating economic opportunity for NYCHA residents through Sustainability work (\$1.6 million). This is the first time NYCHA has included an estimate of the capital needed to achieve the commitments in the Sustainability Agenda. This is purposeful: having concrete goals enables NYCHA to measure and communicate its progress, and to work with partners and funders to address outstanding needs. Like the goals in this Agenda, closing the financing gap is ambitious, but achievable. Across all four goals with financing gaps – as well as other goals in the agenda where NYCHA could exceed targets with additional funding – NYCHA is committed to working with any and all partners on potential solutions to finance the Authority's efforts to innovate at scale for sustainability.

STRATEGIES FOR CLOSING FINANCING GAPS

CITY, STATE, AND FEDERAL CAPITAL ALLOCATIONS FOR SECTION 9 PROPERTIES

Of the \$1.19 billion in funding that has not been identified or secured, roughly half, or \$650 million, is for heat pumps and another 42%, or \$500 million, is for the Waste Plumbing Initiative. The primary strategy for addressing these gaps is through advocating for capital allocations from the Federal, City and State governments. These sources are already, and will remain, the primary sources of funding for NYCHA's capital work at Section 9 properties.

Of these three, Federal funding is responsible for the biggest share of NYCHA's capital funding and offers NYCHA the most flexibility in how funds are allocated to meet the Authority's most critical needs. City and State capital funds are generally targeted to specific projects, which offers the opportunity for close partnership

with City and State leadership to identify capital projects that are mutual priorities: for example, the recent announcement of \$38.4 million in City capital funds for heat pump conversions at the Beach 41st Street Houses in Edgemere, Queens.

While the Federal capital budget has been steady for the last five years, its continuation at the current level is in no way assured. In the next five years, the City and State must maintain or expand their commitments to investing in NYCHA to advance shared goals around affordable housing preservation and climate change mitigation to support low- and moderate-income New Yorkers.

INNOVATIVE FINANCING MODELS AND PARTNERSHIPS

NYCHA is also exploring the use of existing and new funding and financing models for heat pumps, which could provide investment at or approaching the scale required to fill the gap. One strategy is including heat pumps (Goal 1), as well as induction stoves (Goal 3), in future Energy Performance Contracts, which require no upfront investment from NYCHA.

Another potential strategy that NYCHA is exploring for both heat pumps and induction stoves is Infrastructure as a Service (IaaS) or Energy as a Service (EaaS) financing models. Under this model, NYCHA would work with third parties who own and manage key energy infrastructure, with NYCHA paying a stable per-unit fee for services. These financing options can come from a variety of sources that NYCHA has or is developing relationships with, including green banks, impact investors and other private sector partners.

COMPETITIVE GRANTS

NYCHA continues to pursue grants available from Federal and State sources to close gaps in its capital needs budget, to pilot new and innovative approaches, or for project design and planning. Grants are typically targeted to a specific property or project, in line with the funder's priorities. NYCHA often uses grants for projects that have already been scoped but not yet received a capital allocation, or to fund additional items from a scope of work that were not able to be included in a project because of financial constraints.

Competitive grant funding has been a key part of resiliency planning efforts. More recently, NYCHA has received funding commitments of more than \$25 million from New York State, including the Environmental Finance Corporation, for green infrastructure projects that address flood risk through stormwater management. Moving ahead, NYCHA will continue to identify grant funding opportunities to support building electrification and climate resiliency work.

One challenge with grant funding is that Federal and State grants often require local matching funds which NYCHA has limited capacity to provide, given that NYCHA's primary funding source is federal.

Moving forward, NYCHA will continue to pursue grants from Federal and State governments. This requires staff resources, and partnerships with the Mayor's Office and City agencies to pursue funding opportunities and secure local matching funds.

OTHER SECURED AND POTENTIAL FUNDING SOURCES

While working to close funding gaps, NYCHA remains focused on the stewardship of funding already secured and the continued use of well-established funding and financing sources that support sustainability work.

DISASTER RECOVERY FUNDING

Disaster recovery funding from HUD’s Community Development Block Grants for Disaster Recovery (CDBG-DR) and the Federal Emergency Management Administration (FEMA) have been integral to NYCHA’s efforts to rebuild properties affected by extreme weather disasters or that are at heightened risk for damage from extreme weather. These funding streams support repairs as well as mitigation measures to address future risks, including flood doors, elevator repairs and automatic voltage regulators, and green infrastructure.

NYCHA needs continued partnership at the Federal, State and City levels— FEMA, New York State’s Division of Homeland Security and Emergency Services, and New York City’s Office of Management and Budget, respectively—to confirm all available funding for disaster recovery programs, including Federal and local shares, so that these programs can be implemented as expediently as possible.

EPC FINANCING

Energy Performance Contracts (EPC) continue to be an important source of funding for energy and water efficiency improvements that reduce NYCHA’s operating costs. EPCs are loans that are underwritten based on projected

cost savings from reduced energy and water usage. These efficiency improvements are a necessary complement to building electrification, which can increase electricity usage and costs. NYCHA has used EPCs since 1992 but has expanded the amount of capital accessed through this mechanism in recent years, exceeding \$300 million. In the next five years, NYCHA will continue to partner with HUD to gain approval for EPC-financed projects and explore how EPC financing can be used for clean energy projects.

WEATHERIZATION ASSISTANCE PROGRAM FUNDING

The Weatherization Assistance Program (WAP) is a Federally-funded formula grant program administered at the State level through the New York State Department of Homes and Community Renewal (HCR) and implemented through a network of community-based organizations called WAP providers. WAP is intended to support low-income households in making their homes more energy efficient. NYCHA has been working with WAP providers to implement WAP-approved scopes of work at smaller, stand-alone properties; more recently, a group of WAP providers have joined together to work across an entire NYCHA campus. NYCHA incorporates WAP scopes of work into existing capital projects so that the capital project funding can be applied as the required owner’s contribution. NYCHA will continue to work with WAP providers and HCR to develop scopes of work that are feasible within WAP guidelines and NYCHA’s existing capital project pipeline.

CAPITAL INVESTMENTS FROM PARTNERSHIP AGREEMENTS

NYCHA has implemented public-private partnership models that result in investments from the private sector and other third-parties in NYCHA properties. For example, since the last agenda, NYCHA has continued to lease out its rooftops for solar photovoltaic panel installation. In this scenario the solar panels are owned, financed and maintained by private developer, and NYCHA receives an annual lease payment. In 2026, NYCHA will be soliciting partners for electric vehicle charging at NYCHA parking lots, using similar arrangements. These projects generate benefits for NYCHA residents and properties, without NYCHA’s involvement in securing capital funds. NYCHA needs continued interest in partnership from the private sector to participate in these types of partnerships, as well as their ability to leverage capital that can be deployed through projects at NYCHA.

FUNDING FROM CARBON MARKETS

NYCHA has been the recipient of funding generated through the Regional Greenhouse Gas Initiative (RGGI), the nation’s first mandatory market-based effort to reduce GHG emissions. RGGI generates revenue from the sale of tradable carbon dioxide emissions allowances for power plants. The revenue generated is reinvested at the State level in energy efficiency, renewable energy and GHG abatement. NYCHA has received RGGI funds through NYSERDA, including the \$13 million investment that NYSERDA made in the Clean Heat for All Challenge.

Looking ahead, NYCHA sees similar opportunities for funding generated through New York State’s potential cap-and-invest program, which would create a Climate Action Fund to invest in efforts to reduce the State’s carbon footprint. In the next five years, NYCHA needs State leaders to prioritize NYCHA as a recipient of funding from these regulatory schemes, given the scale of decarbonization work that NYCHA is implementing.

PHILANTHROPY

Public Housing Community Fund (PHCF) is the primary conduit for philanthropic support of initiatives that enhance the lives of NYCHA residents through programs focused on leadership development, financial empowerment, community health, and workforce development. Philanthropic funding, from corporations, foundations and individuals, is useful for piloting new initiatives, and supporting small capital projects as well as programs that develop or require human capital.

Since the 2021 Sustainability Agenda, NYCHA Sustainability and PHCF have partnered to: develop and launch the NYCHA Clean Energy Academy, a workforce development program for NYCHA residents to access green jobs; implement the Resident Climate Action Grants program; and pilot a tree care partnership with NYC Parks. NYCHA and PHCF will continue to partner to identify opportunities where philanthropic support can help launch or grow sustainability initiatives, especially ones that create opportunities for NYCHA residents, to close the \$1.6 million funding gap for Goal 9 of this agenda.



