

NextGeneration NYCHA Sustainability Agenda



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EXECUTIVE SUMMARY

NextGeneration NYCHA

NYCHA's public housing portfolio serves 400,000 of New York City's lowest-income households: those who are employed, on a fixed income, and those who are emerging from poverty. For these households, there are few or no housing alternatives. Like other infrastructure created for the public good—water and sewers, transit, parks, and roads—public housing is an asset that must be preserved for future generations of New Yorkers.

Yet the future of New York's public housing is threatened by decades of disinvestment. In the past 15 years alone, federal funding for NYCHA has fallen short by almost \$2.5 billion. Combined with the aging buildings that make up the NYCHA portfolio, these shortfalls have resulted in a need for \$17 billion in capital improvements. Absent a fundamental transformation in funding and operations, there is a real possibility that NYCHA could fall into U.S. Department of Housing and Urban Development (HUD) receivership.

NextGeneration NYCHA is the Authority's 10-year roadmap to end the downward spiral. The plan outlines 15 strategies driven by a simple vision: **safe, clean, and connected communities**. The four goals designed to achieve this vision are:

1. Achieve short-term financial stability and diversify funding for the long term
2. Operate as an efficient and effective landlord
3. (Re)build, expand, and preserve public and affordable housing
4. Engage residents and connect them to best-in-class social services

With the success of NextGeneration NYCHA, the Authority will become a financially solvent organization, free from hundreds of millions of dollars of annual shortfalls. A balanced budget will be evidence of organizational stability; NYCHA will then be able to attract investment to restore its buildings to a state of good repair and livability.

The NextGeneration NYCHA Sustainability Agenda

The Sustainability Agenda, an extension of NextGeneration NYCHA, expresses NYCHA's commitment to create healthy and comfortable homes that will withstand the challenge of climate change. It is also an invitation to residents and surrounding communities to work with NYCHA to realize a shared long-term vision of equity, sustainability, and resiliency.

It is imperative that NYCHA, as New York's largest low-income housing provider and the largest public housing authority in the nation, acts now to blunt the impact of climate change on its portfolio and on its residents. The vast majority of NYCHA developments are located in areas subject to more than their fair share of polluting industrial, municipal, and commercial infrastructure. Further, NYCHA serves thousands of vulnerable residents, including children and

seniors whose health is threatened by airborne pollution. Many NYCHA neighborhoods are asthma “hotspots” that generate the highest rates of asthma-related emergency room visits in the city. Climate change is expected to exacerbate health risks of all types; if the aftermath of Superstorm Sandy is any indication, low-income people will suffer from climate change disproportionately.

The Sustainability Agenda details the commitments that NYCHA will make over the next 10 years to improve resident well-being and operate as an effective and efficient landlord. By communicating these priorities and goals clearly, NYCHA seeks to establish a firm foundation for partnerships with residents and the communities surrounding them to work together towards a sustainable and resilient city.

Focusing on resident health and comfort, and working hand-in-hand with sister agencies and community partners, NYCHA aims to achieve the following by 2025:

- Eliminate the **root causes of mold** by fixing leaks in roofs, façades, and pipes and by modernizing ventilation systems;
- Eliminate **overheating** and **unplanned heat and hot water outages**;
- Start on the path to meeting the City’s goal of **reducing greenhouse gases** by 80 percent by 2050;
- Address **climate adaptation and resiliency** in all capital planning; and
- Incorporate **sustainability into day-to-day management** of all properties.

Climate adaptation is the set of actions taken to cope with changing climate conditions.

The Strategies

Each strategy in the Sustainability Agenda is a 10-year goal supported by actions that NYCHA will begin today.

Goal 1: Achieve short-term financial stability and diversify funding for the long term

Attract investment for capital improvements. NYCHA will attract \$300 million in private capital to fund large-scale retrofits through Energy Performance Contracts, and tap energy-efficiency incentive programs to reduce the capital needs of scattered-site developments by \$30 million.

Raise revenues through clean and distributed energy projects. NYCHA will develop a pipeline of commercial-scale solar projects for third-party solar developers. NYCHA will also develop a resilient microgrid and district energy system at Red Hook East and West Houses and support the City in identifying other opportunities for community-scale clean and distributed energy systems.

Goal 2: Operate as an effective and efficient landlord

Create healthy indoor environments. NYCHA's most important responsibility in sustainability is to provide healthy and comfortable apartments free of mold, pests, asthma-triggering materials, external odors, and second-hand smoke. To that end, NYCHA will implement a comprehensive mold response plan; require low- and no-volatile organic compound caulks, paints, coatings, and adhesives; provide Integrated Pest Management; reduce exposure to second-hand smoke; and follow a healthy home-focused vacancy turnover protocol.

Efficiently provide comfortable and reliable heat and hot water. Most NYCHA buildings are chronically overheated in the winter, but NYCHA residents also experience unplanned heating and hot water outages. NYCHA will improve heating and hot water systems through smart building technology, thoroughly test and tune all building systems, and invest in the training and professional development of heating operations staff.

Improve water management. NYCHA will support the City's goal of reducing water demand by 5 percent by 2020 by working with the City's Department of Environmental Protection (DEP) to meter all developments by 2018; studying the patterns of water use to identify conservation opportunities; updating purchasing standards; and installing water-efficient fixtures.

Adopt a comprehensive waste management plan. NYCHA will develop a comprehensive waste management plan to identify infrastructure improvements, changes in building operations, and construction waste management standards needed to support the City's goal of sending zero waste to landfills by 2050. NYCHA will install recycling infrastructure throughout the portfolio by 2016, and complete a waste composition study by 2017.

Goal 3: (Re)build, expand, and preserve public and affordable housing

Adopt sustainability standards. Stringent and well-enforced sustainability standards make buildings more efficient and construction techniques more effective. All new construction projects will be required to meet the NYC Overlay to the Enterprise Green Communities Criteria, the City's green standard for affordable housing since 2011. All substantial renovation projects will be required to meet an aggressive minimum energy performance standard. Moderate rehabilitation projects will follow updated standards and specifications, consistent with the NYC Overlay.

Eliminate roof, façade, and plumbing leaks. An important step in eliminating mold and pests is to prevent water from entering buildings from the exterior. Forty-five percent of NYCHA developments need immediate roof replacements, but have no source of funds, and interior plumbing leaks must also be addressed wherever they are found. NYCHA will continue to seek funds for roofs, exterior repairs, and interior plumbing upgrades.

An Energy Performance Contract finances upgrades in units by the long-term energy and water savings they generate.

Since the EPC program began in the early 1990s, 249 public housing authorities have completed 319 EPC projects.

The **100-year flood plain** is the area with a 1 percent or greater chance of flooding in a given year.

Retrofit master-planned developments. Eighty-seven percent of NYCHA apartments are part of master-planned developments, each home to an average of 2,700 residents. These developments use 40 to 50 percent more energy per square foot than the average multifamily building in New York. NYCHA will pursue a series of HUD Energy Performance Contracts to provide brighter and more efficient lights, consistent and comfortable heating, new water-conserving fixtures, and working ventilation in all buildings with mechanical exhaust systems.

Retrofit scattered-site developments. NYCHA's portfolio includes 659 stand-alone buildings and 1-4 family homes, housing 45,000 residents. These scattered-site developments require different financing tools and construction approaches. NYCHA will tap the New York State Weatherization Assistance Program and utility-run energy efficiency programs to provide energy- and water-efficiency upgrades.

Build green infrastructure. With 2,500 acres of land, NYCHA has a unique asset to contribute to the City's green infrastructure and water quality. NYCHA will partner with DEP to install green infrastructure at NYCHA developments within the Combined Sewer Overflow priority areas, and seek funds to implement the "Stormwater Management Through Placemaking" initiative at Superstorm Sandy-affected developments.

Incorporate climate change resiliency into capital planning. Adaptation to climate change will become increasingly important in the effort to preserve the NYCHA portfolio, and to blunt the potential impacts on the safety and quality of life of residents. NYCHA will assess the risks presented by a Sandy-like storm and develop specific resiliency retrofit plans for all developments in the 100-year floodplain. NYCHA will also identify and assess hazards associated with excessive heat and other climate change-related disturbances.

Goal 4: Engage residents and connect them to best-in-class services

Support resident- and community-led sustainability. NYCHA's commitments as a landlord in the Sustainability Agenda provide a starting point for resident engagement and partnership. Residents make countless daily decisions that influence how sustainable NYCHA developments can become, and sustainability at NYCHA and in the surrounding neighborhoods are also intertwined. NYCHA will launch an "ideas marketplace" for resident- and community-led sustainability initiatives; make Resident Green Committees independent and self-sustaining by 2018; promote healthy food access by directing public and private investments in resident-led urban agriculture; and educate, inform, and engage residents on NYCHA sustainability initiatives.

Connect residents to green jobs. NYCHA connects residents to economic opportunities by creating jobs and by improving job readiness and access. NYCHA will require resident hiring and training plans in third-party clean and distributed energy projects that would not otherwise be required to develop such plans. NYCHA will prepare residents for future work in energy and sustainability by enhancing existing programs, and use NYCHA's purchasing power to create resident-owned business opportunities.

80 x 50: Working towards 80% reduction in greenhouse gases by 2050

Greenhouse gases like carbon dioxide and methane contribute to the "greenhouse effect", the leading cause of global warming.

Create an 80 x 50 roadmap. The City estimates that meeting the ambitious goal of reducing greenhouse gases 80 percent by 2050 would require buildings to reduce emissions 30 percent by 2025 and 60 percent by 2050. Through the energy conservation initiatives in the Sustainability Agenda, NYCHA expects to meet the 2025 reduction target; however, 82 percent of NYCHA's buildings will be more than 50 years old by 2025, and are not likely to achieve further reductions without substantial changes in fundamental building systems. NYCHA will determine how much additional reductions must be generated, and estimate the costs and benefits of various "deep retrofit" pathways.

Create incentives to encourage new low-energy buildings. New buildings providing 17,000 new apartments—13,500 of them affordable apartments—will be constructed over the next 10 years on NYCHA-owned land as part of the City's 200,000-unit affordable housing plan. NYCHA will work with the City's Department of Housing Preservation and Development to favor new construction proposals that commit to ultra-low-energy buildings.

Test "deep" energy retrofit technologies. By 2025, NYCHA will need to know how to implement "deep retrofits" that involve replacement of fundamental building systems. Before 2025, NYCHA will test new and emerging technologies and construction methods; participate in deep retrofit pilot programs; identify test cases for envelope retrofits and heating system replacements; and launch a "Call for Innovations" to solicit promising ideas.