

Improve Comfort and Energy Efficiency

85% NYCHA apartments built before 1980



15% Built after 1980 when the first energy code was developed

40% more energy used by NYCHA units



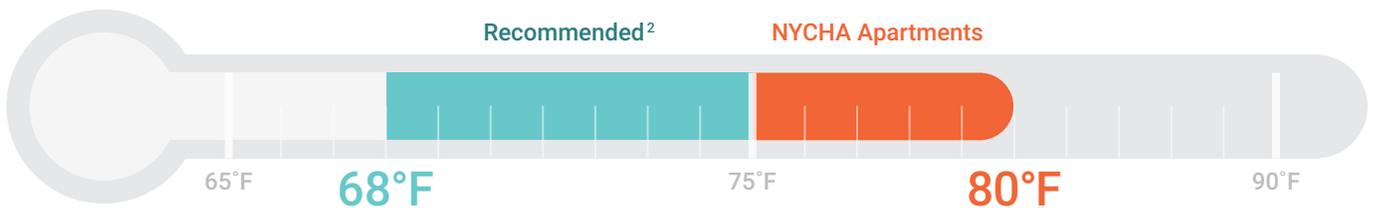
120 kBtu/sf New York City's average energy use for multi-family buildings¹

92% of apartments are heated with steam, the most inefficient way to heat buildings.

1,379 boilers provide NYCHA's heat. Each has a life expectancy of 30 years. 45% are already 25+ years old.

Apartments are overheated because outdoor temperature sensors can't tell when it's hot inside—only that it's cold outside.

Winter-time indoor temperature



 That's like keeping the lights on inside because it's dark outside—even when you're sleeping or not home.

NYCHA will Upgrade Heating, Hot Water and Lighting

\$300 Million Investment to retrofit master planned developments

\$30 Million Investment to retrofit 5,000 apartments in small buildings

Eliminate unplanned heat and hot water outages



Regularly test and adjust settings

of boilers, hot water heaters, ventilation and lighting to optimize performance



Eliminate overheating by installing control systems in

8 developments by 2016

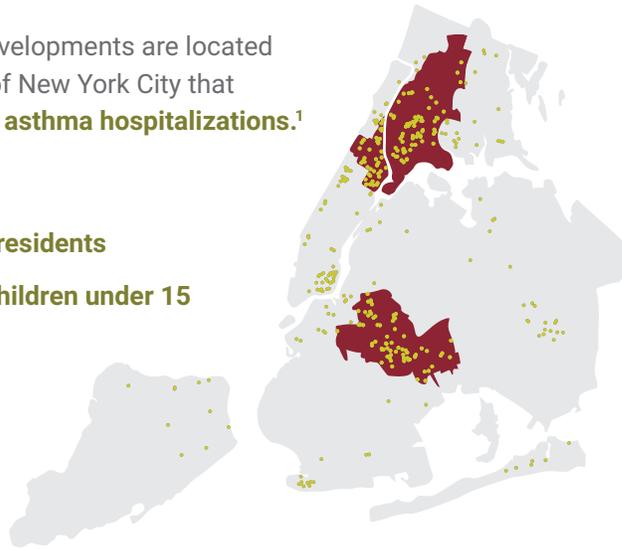
230 developments by 2025



NextGeneration NYCHA Sustainability Agenda
Improve Indoor Air Quality

43% of NYCHA developments are located in the areas of New York City that **see the most asthma hospitalizations**.¹

They house **151,000 residents**
38,000 children under 15



New York City plans to have the **best air quality** among all large US cities by 2030.



NYCHA can't control outdoor air pollution, but its sustainability strategies can improve indoor air quality.

■ Highest rate of asthma hospitalizations in NYC
 ● NYCHA development

NYCHA will **Comprehensively Approach Indoor Air Quality**

VOCs

Volatile Organic Compounds are chemicals found in some maintenance products.



By 2017, new purchases will be low-VOC or **VOC-free**.

Improve the health of staff and residents

Pests

Develop a **comprehensive pest management approach** and reduce the use of toxics.



23% of all New York City households reported seeing at least one cockroach daily in the span of a month in 2014.

Mold

The presence of water is required in order for mold to thrive.



Case-management approach

Thorough inspections and integrated solutions to eliminate the root cause.

Smoke

Smoking is banned in common areas, yet 50%+ residents report smelling second-hand smoke in their homes.



Residents of 830 Amsterdam who took the first step by signing a pledge to keep their building smoke-free.



1. Based on DOHMH highest rates of admission to the emergency department for asthma (people 15 years and older)

Meet the Challenge of Climate Change

90°F days per year in New York City¹

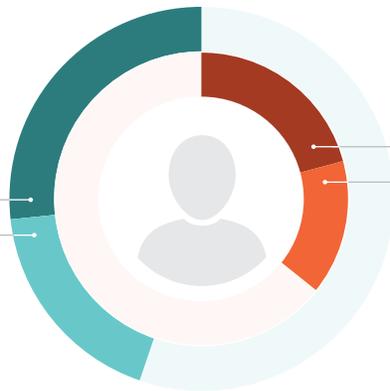


54,000 NYCHA residents are located in areas **subject to coastal flooding**

1 in 6 NYCHA buildings lost power during Superstorm Sandy

44% of NYCHA residents are children and seniors

<18 years old (27%)
65+ years old (17%)



vs. New York City's population
(21%) <18 years old
(15%) 65+ years old

NYCHA also has almost **2x** more residents <65 years old with disability than the New York City average

NYCHA will Mitigate its Impact and Adapt to Climate Change



Contribute to the City's goal of reducing greenhouse gas emissions by 80% by 2050. **NYCHA will reduce its energy use by 20% in 10 years.**

That's like **removing 52,000 cars** from the road.



Developments that are subject to flooding will receive **resiliency retrofit plans** and community emergency preparedness.



33 Sandy-impacted developments will receive back-up power



will provide

25 MW of solar energy in 10 years

Manage stormwater through **green infrastructure (GI)**

By 2018: GI projects at **6 developments**
28 million gallons of water captured annually
30+ additional projects to come

