

NYSERDA LIFE Conference

May 24, 2016



NYC **Retrofit**
ACCELERATOR
Buildings That Make a Difference



A free **one-stop resource** to help owners and operators of privately-owned buildings in New York City increase the value and sustainability of their properties through energy and water upgrades.



Background

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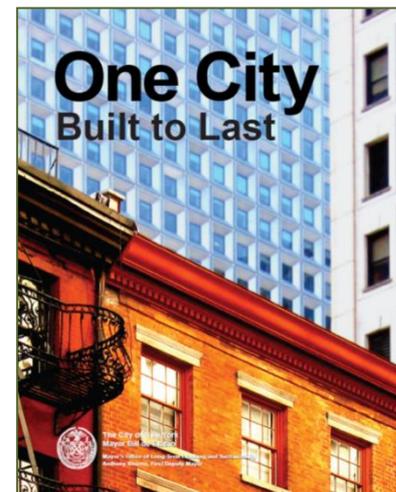
OneNYC

- 2015 update to and expansion of PlaNYC
- Commitment to 80x50: An 80% reduction in NYC's greenhouse gas (GHG) emissions by 2050



One City: Built to Last

- 10-year action plan to improve energy efficiency in buildings
- Technical Working Group to develop a pathway to 80x50 for buildings

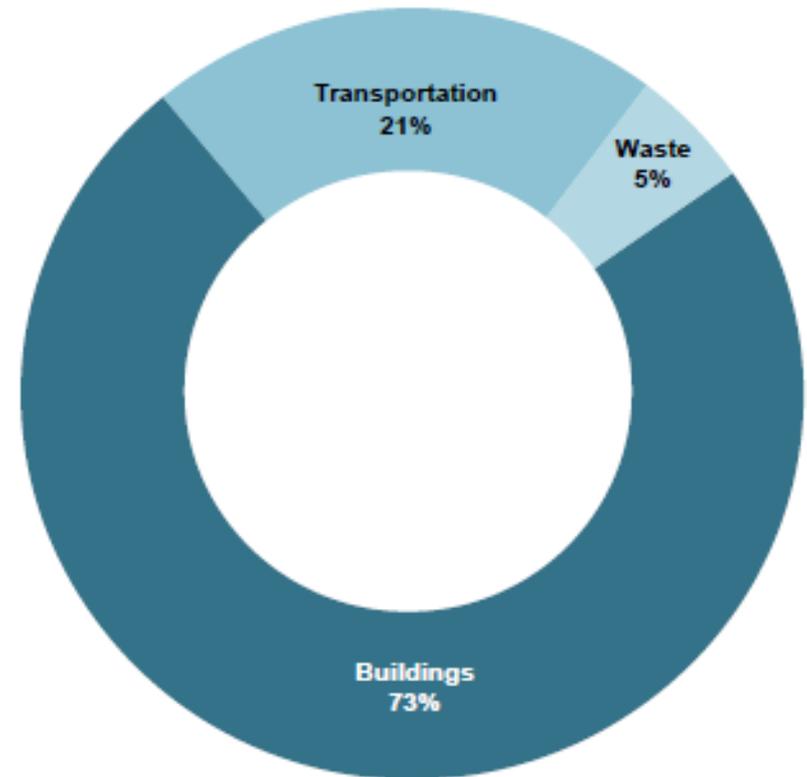


Background

Why Focus on Buildings?

- **73%** of New York City's GHG emissions
- **90%** of NYC buildings that exist today will still exist in 2050

2014 NYC GHG Emissions by Source



Background

THE NEW YORK CITY

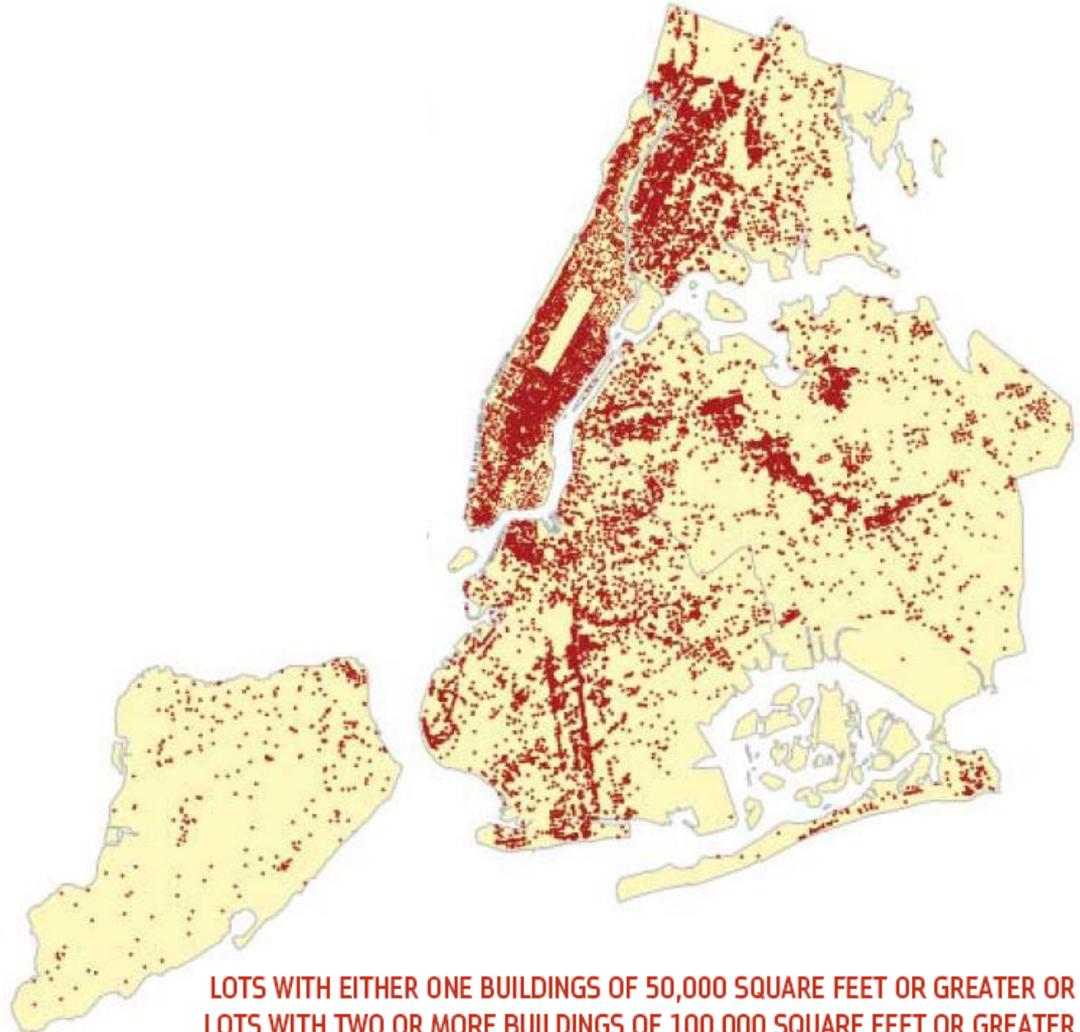
GREENER, GREATER BUILDINGS PLAN

1 **New York City Energy Code**
Local Law 85

2 **Benchmarking**
Local Law 84

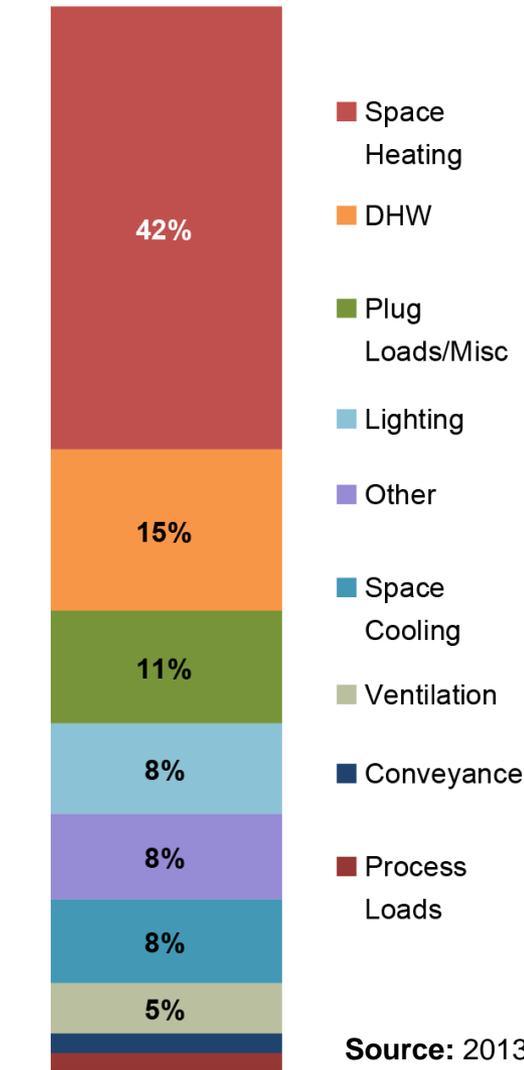
3 **Audits and
Retro-commissioning**
Local Law 87

4 **Lighting Upgrades and Sub-
metering**
Local Law 88



Background

GHG Emissions by End Use



Source: 2013 and 2014 LL87 Submissions

GGBP data informs the NYC Retrofit Accelerator

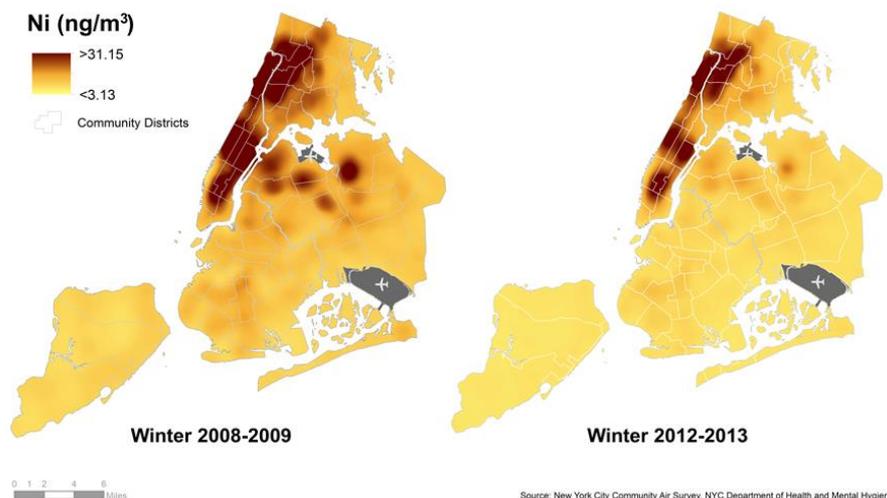
- Local Laws 84 and 87 provide insight on where buildings can save energy
- Data analysis inform program outreach and assistance

Background

Foundation in NYC Clean Heat Program

- 6,000 buildings completed heating oil conversions since 2012
- 76% of conversions assisted by Clean Heat
- 100% compliance rate with No. 6 oil phase out

Nickel Emissions in 2008 and 2012



Source: New York City Community Air Survey, New York City Department of Health and Mental Hygiene

NYC Assistance Programs



NYC Programs



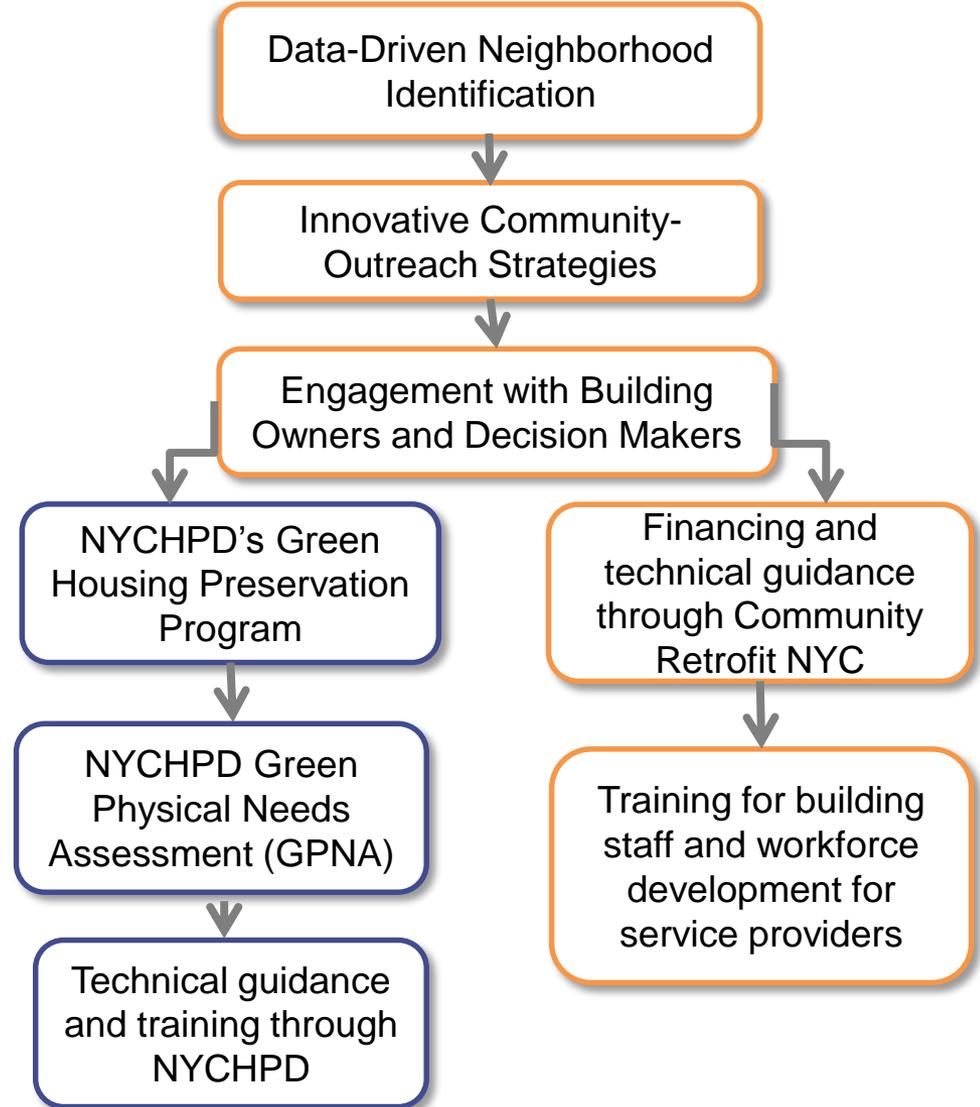
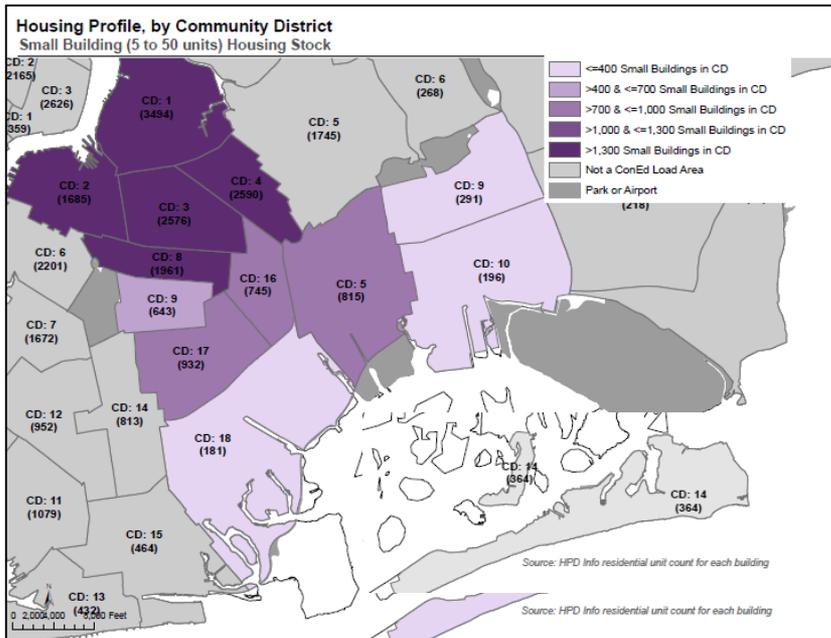
Supporting communities and building owners to invest in energy and water retrofits to lower utility costs, preserve housing affordability, and improve quality of life for residents.

A joint initiative of



Community Retrofit NYC Program

Audience: Owners and decision makers of multifamily buildings from 5 to 50 units in Central Brooklyn and Southern Queens



NYC Benchmarking Help Center

The New York City Benchmarking Help Center will help building owners report their energy and water data for compliance with Local Law 84.

The Help Center staff is prepared to help you:

- **Interpret Local Law 84 (LL84) Requirements**
- **Navigate US EPA ENERGY STAR Portfolio Manager®**
- **Understand how to request energy and water data from utilities**
- **Improve the accuracy of your data**
- **Go through the process of submitting data to the City**
- **Address benchmarking related questions or problems**



Program Overview

There are many barriers to investing in energy efficiency



Why should I do energy upgrades?



Which measures make the most sense for my building?



New technology is too confusing, will my super operate it correctly?



How will I pay for these upgrades?



How do I get a good contractor?



How do I make sure the project stays on track?

How does the NYC Retrofit Accelerator help?



Meet & Discuss



Review & Prioritize



Connect to Educational Resources



Identify Financing & Incentives



Select a Service Provider



Track Progress & Plan Future Projects

The Retrofit Accelerator Helps Decision-Makers:



- **Meet** one-on-one with Efficiency Advisors
- **Discuss** building priorities, needs, and collect information



- **Review** energy audits and benchmarking data
- **Prioritize** energy and water efficiency projects



- **Connect** building staff to available training and educational resources



- **Identify** incentive and financing options



- **Select** a service provider & contractor that best serves the project's needs



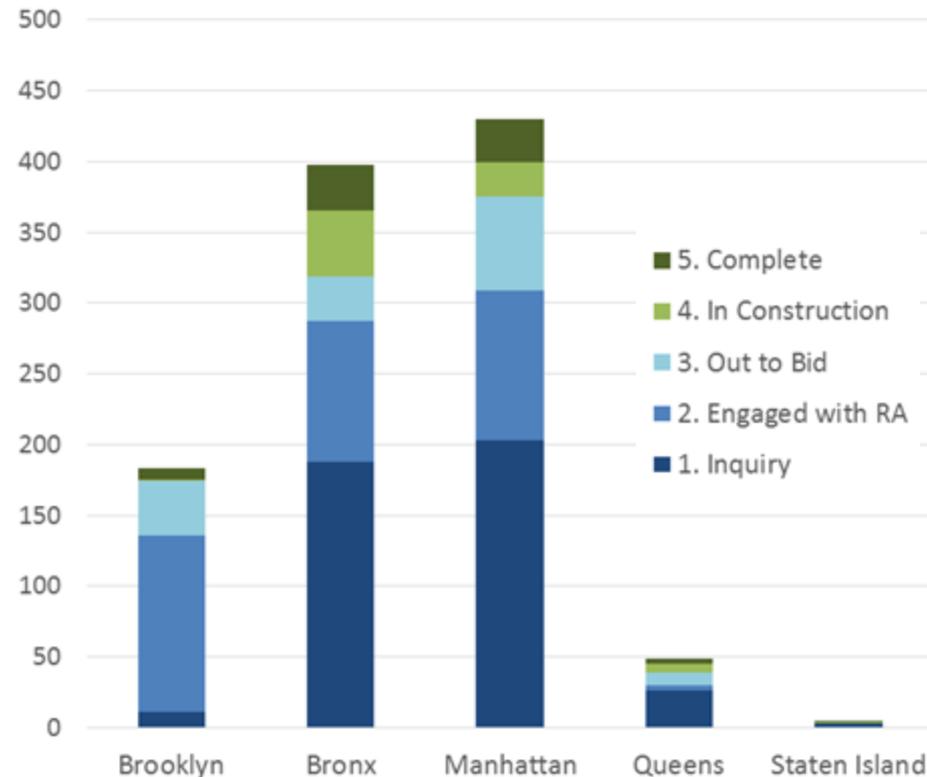
- **Track** project progress
- **Plan** for future projects

Retrofit Accelerator Outreach

Public Outreach

- Attend public events and presentations
- Host events and webinars
- Connect with decision-makers through existing contacts

NYC Retrofit Accelerator Project Pipeline
March 2016





Participant Case Study

Case Study Overview

Cooperative Building in Brooklyn

- Mitchel-Illama
- HCR regulated
- 423 units total
- 3 properties, 15 floors
- 2014 Local Law 87 compliance



Case Study Overview

Data Findings:

High Opportunity:

- Upgrade Distribution System
- DHW System Improvements
- Building Envelope Improvements
- Controls Improvements
- CHP

Low Hanging Fruit Options:

- Terminal Unit Controls
- Distribution System Upgrades
- DHW System Controls
- Building Envelope Improvements
- Light ECM
- Heating System Improvements
- Draft Damper





Meet & Discuss

Initial Engagement: Property manager is part of the NYC Carbon Challenge program.

Meeting and Discussion: An Efficiency Advisor met with the property manager and board to:

- Explain the role of the Retrofit Accelerator
- Engage the board to understand ongoing issues and priorities
- Receive more information about the building

Result: The board was very enthusiastic about pursuing a project, but had yet not taken action



Review & Prioritize

Background and Barriers:

- Local Law 87 audit completed in 2014
- Audit included low cost projects
- Board interested in projects, but were concern about implementation costs

Audit and Information Review: The Efficiency Advisor reviewed audit and gathered additional information to find:

- Building falls within BQDM
- Possible candidate for CHP and Green Infrastructure
- Opportunities for affordable housing lighting upgrades

Identify and Prioritize Projects: The Retrofit Accelerator staff explained options to the board and developed a path forward



Connect to Educational Resources

Educational Needs: Board members had many questions to understand ongoing issues:

- Causes of utility prices increasing
- Opportunities to upgrade heating systems

Future Educational Resources: The board and building staff could benefit from:

- Building operator training opportunities
- Hands-on understanding of existing and new building systems



Identify Financing & Incentives

Uncertainty about Options: The board knew incentives were available, but:

- Unclear about options due to HCR regulation and size
- Unaware of the range of options
- Unsure how to engage with various programs

Identify Financing and Incentives: With the help of the Efficiency Advisor, the board:

- Will be able to use Con Edison BQDM Lighting incentives and have a free LED lighting upgrade for interior and exterior fixtures
- Received NYSERDA CHP feasibility study, and will incorporate a 500kW CHP system free of charge
- Working with NYC DEP Green Infrastructure for a grant to have a green roof and a pervious pavement basketball court



Select a Service Provider

Difficulty determining qualifications: The board was unsure of what to look for to find a qualified service provider.

Selection process: The Efficiency Advisor helped on the following projects:

- **Lighting Project**

- Connected to Con Edison's Multifamily BQDM program and assisted them review lighting proposals

- **CHP**

- Connected to NYSERDA's CHP contractor for a feasibility assessment
- Reviewed proposals and selected contractor

- **Green Infrastructure**

- Engaged with NYC DEP to understand grant potential for green roof



Track Progress & Plan Future Projects

Project Progress: The Efficiency Advisor has continued to work with this building by:

- Ensuring communication happens between lighting contractor and property manager
- Helping the board understand the process in utility programs
- Ensuring that they are benchmarking correctly to track savings

Future Projects: The Efficiency Advisor will:

- Help the board connect with BMS/EMS contractors
- Review Local Law 87 report and additional opportunities presented in our data analysis



Thank you