



Department of
Housing Preservation
& Development

HPD Sustainability

Building a greener and more affordable NYC



Department of
Housing Preservation
& Development

HPD is the largest municipal housing agency in the nation. We:

1. Build **new** affordable housing
2. Preserve **existing** affordable housing
3. Engage neighborhoods in **planning and tenant protection**





**Department of
Housing Preservation
& Development**

1. Policy frameworks to Passive House
2. Passive House feasibility
3. Challenges to financing Passive House

One New York

The Plan for a Strong
and Just City



The City of New York
Mayor Bill de Blasio

Anthony Serris
First Deputy Mayor

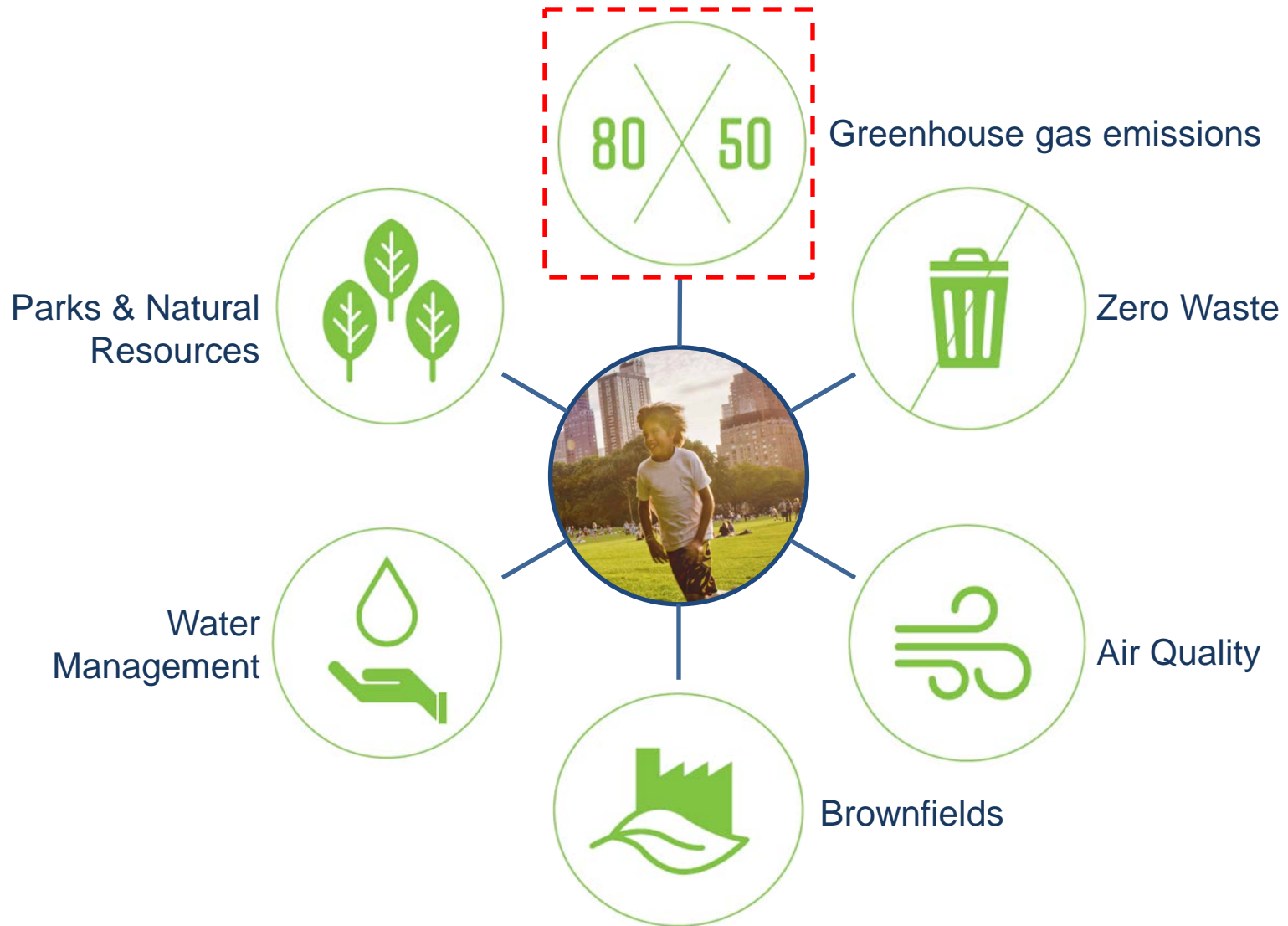
NYC

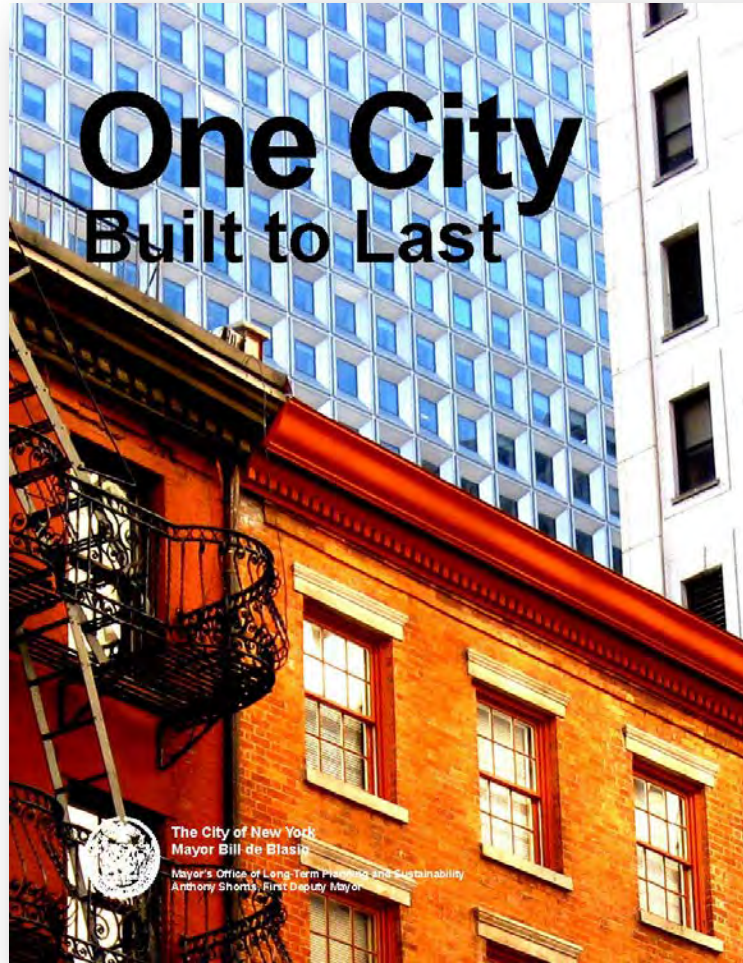
One New York

*Integrated approach to promoting the
City's growth, equity, sustainability, and
resiliency*

Released: April/2015

One New York: Sustainability goals





Released: September/2014



One City Built to Last

*Transforming New York City's buildings
for a low-carbon future*

Local Law 66-2014

- 30% reduction by 2030
- 80% reduction by 2050

**LOCAL LAWS
OF
THE CITY OF NEW YORK
FOR THE YEAR 2014**

No. 66

Introduced by Council Members Constantinides, Chin, Cumbo, Mendez, Rodriguez, Rose, Rosenthal, Deutsch, Treyger, Kallos, Williams, Miller, Palma, Richards, Espinal, King, Garodnick, Johnson, Levin, Torres, Lancman, Levine, Weprin, Koslowitz, Dromm, Gentile, Koo, Menchaca, Reynoso, Crowley, Cornegy, Vacca, Cohen, Eugene, Vallone, Ferreras, Van Bramer, Arroyo, Lander, Dickens, Barron, Ulrich and the Public Advocate (Ms. James).

A LOCAL LAW

To amend the administrative code of the city of New York, in relation to reducing greenhouse gases by eighty percent by two thousand fifty.

Be it enacted by the Council as follows:

Section 1. Legislative findings and intent. The Council finds that the reduction of greenhouse gases that contribute to global warming is critical to the current and future prosperity of New York City. The Council further finds that in view of the rapid progress of climate change events and indicators and in order to increase the effectiveness of New York City measures intended to prepare for and alter the course of adverse climate change impacts on New York City's critical infrastructure and vulnerable citizens, and consistent with the spirit of PlaNYC 2030 and the New York City Climate Protection Act, Local Law 22 of 2008, the reduction of emissions citywide should be increased from a thirty percent reduction in citywide emissions by calendar year 2030, relative to such emissions for the base year, to an eighty percent reduction in citywide greenhouse gas emissions relative to such emissions for the base year by calendar year 2050.

Therefore, the Council finds that it is in the best interests of the City to provide for an increase in future reductions in citywide greenhouse gas emissions.

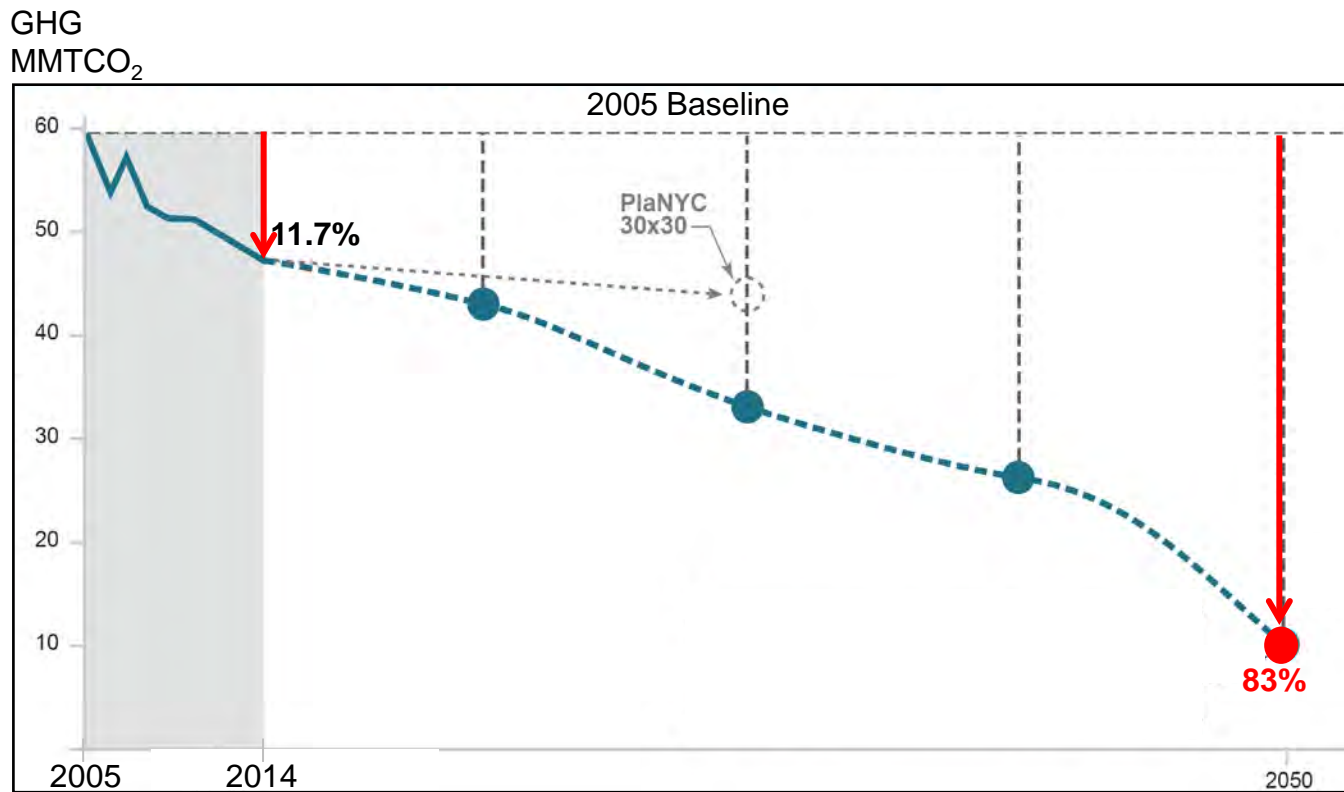
Adopted: December/2014



New York City greenhouse gas emissions by sector



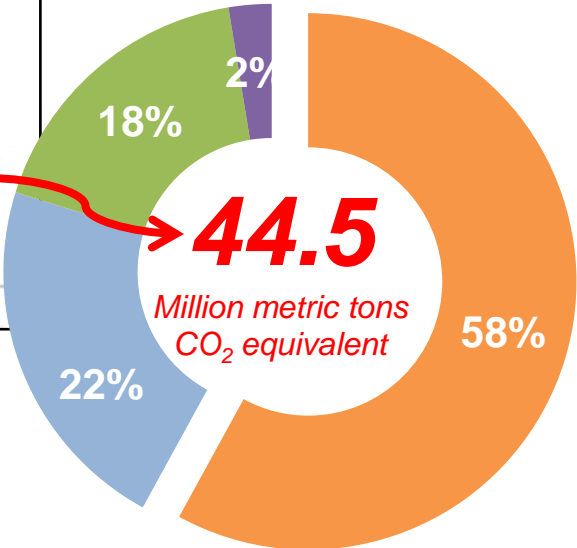
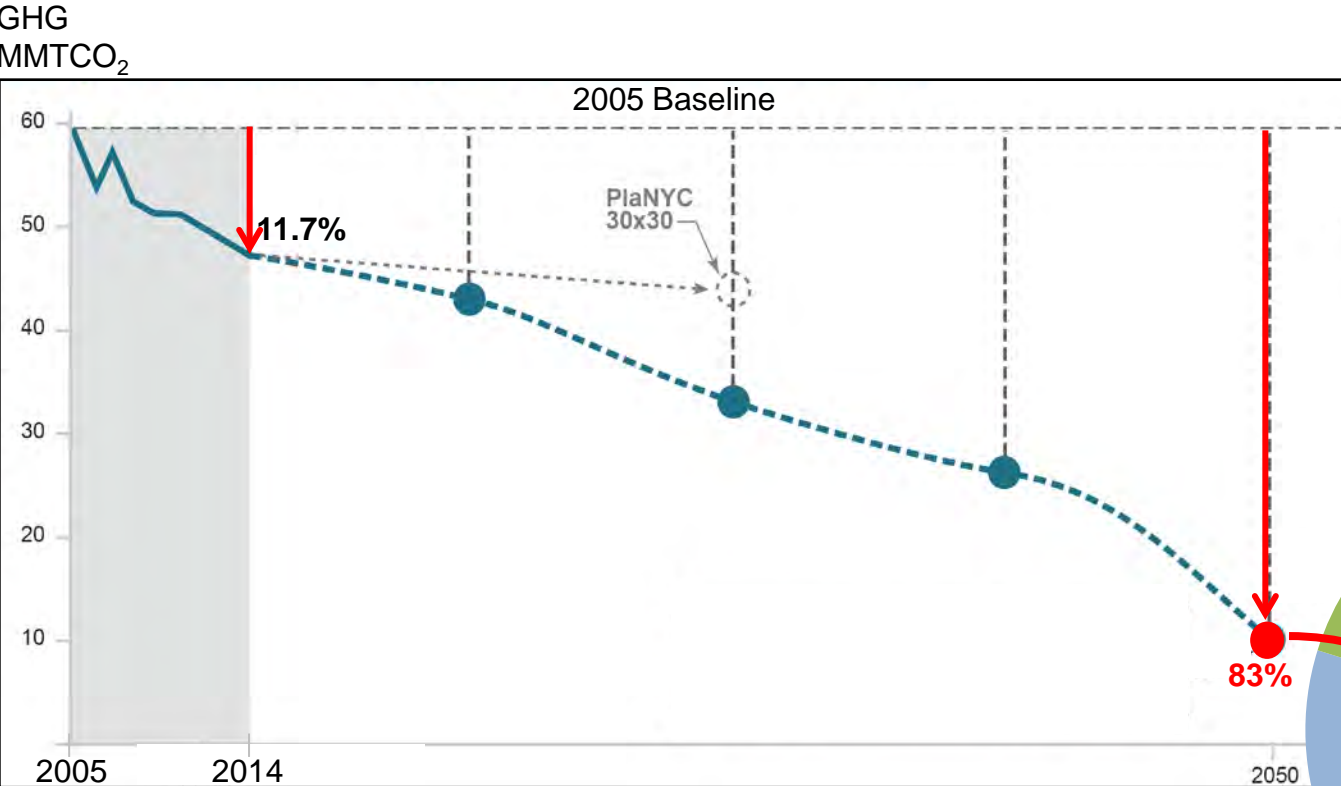
Transforming New York City's buildings



→ 11.7% reduction between 2005-2014



Transforming New York City's buildings

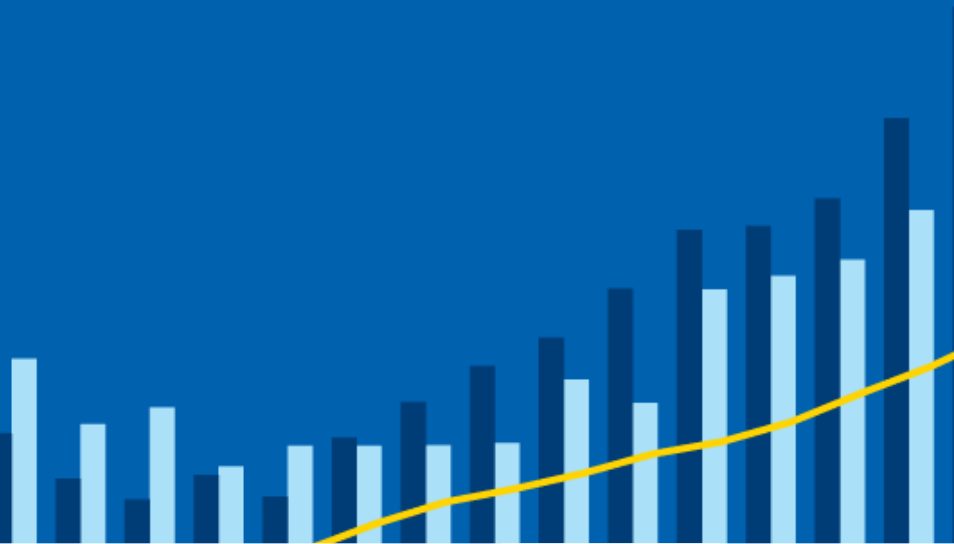


- Buildings
- Power
- Transportation
- Solid Waste

**200,000 affordable
units over 10 years**

Housing New York

A Five-Borough,
Ten-Year Plan



52,939 units*

2016

**includes all units counted during FY 2014 –June 30 2016*

Passive House: pathway to 80 x 50

CORNELL
TECH

HOME OF THE
JACOBS
INSTITUTE

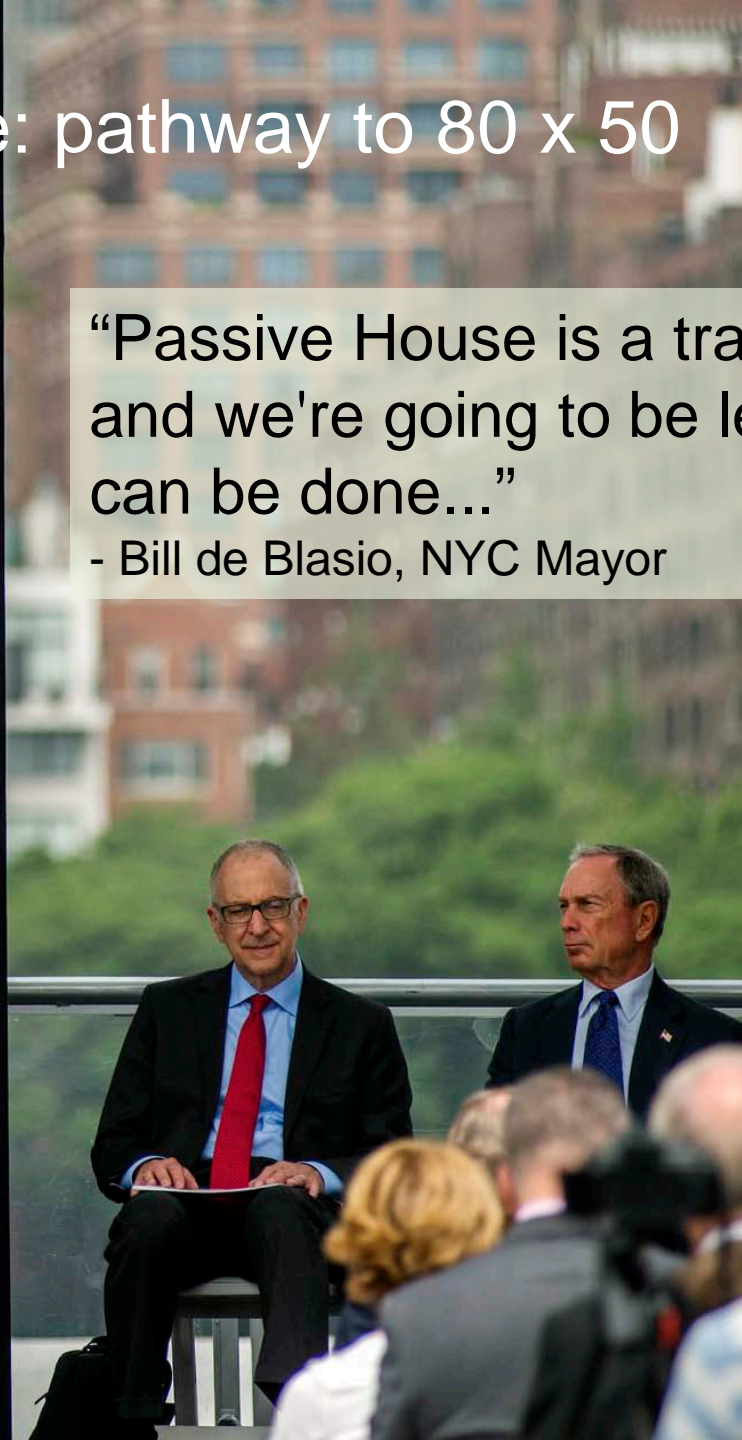


“Passive House is a transformative notion and we're going to be leaders showing this can be done...”

- Bill de Blasio, NYC Mayor

CORNELL TECH

HOME OF THE
JOAN AND IRWIN JACOBS
TECHNION-CORNELL
INSTITUTE



*Cornell Tech groundbreaking
June 16, 2015*

Phasing HPD's low energy building portfolio

Phase 1

Feasibility:

Assess opportunities to demonstrate in new construction and preservation

Phase 2

Incentives:

Provide incentives to encourage Passive House development

Phase 3

Mandatory Requirements:

Require Passive House for all new construction

Underwriting challenges

1. *Can the NYC market consistently deliver passive house construction?*
2. *What is the price point of Passive House construction?*
3. *Are the savings real and sustainable?*
4. *Are there long term concerns with maintenance & operations?*

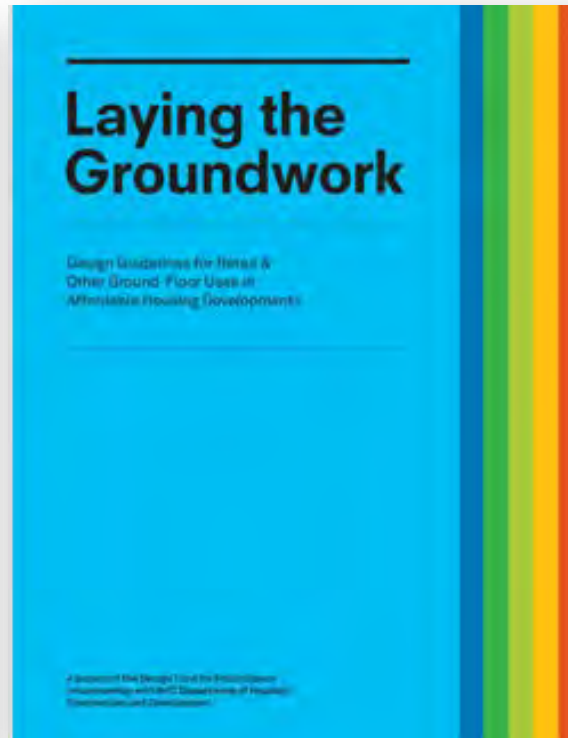
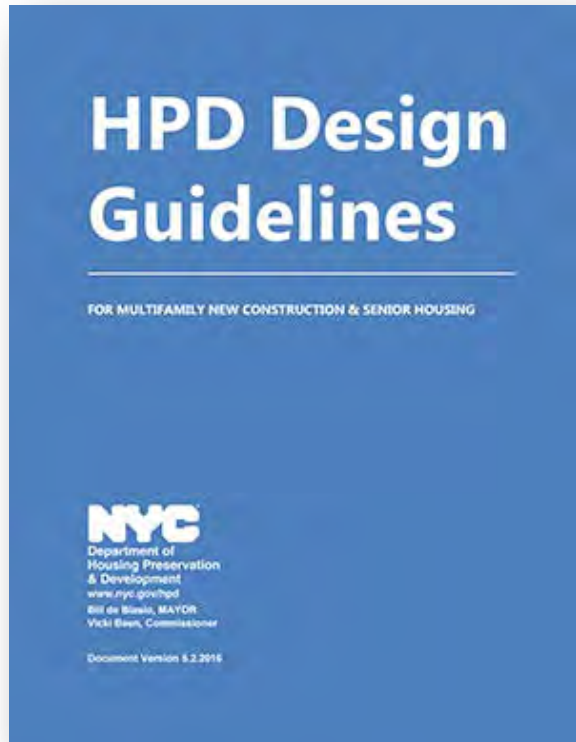


- Convincing lenders on Passive House
- HPD subsidy is gap financing
- Over-subsidizing to the extent savings not recognized

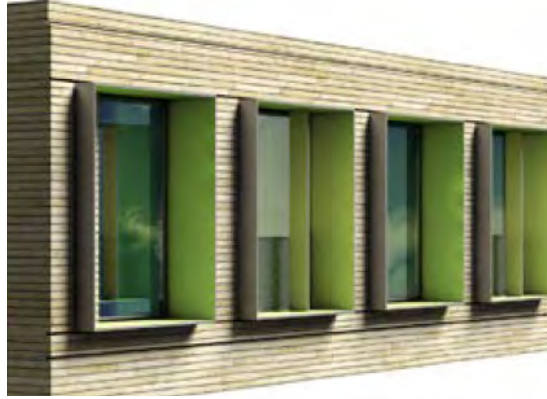
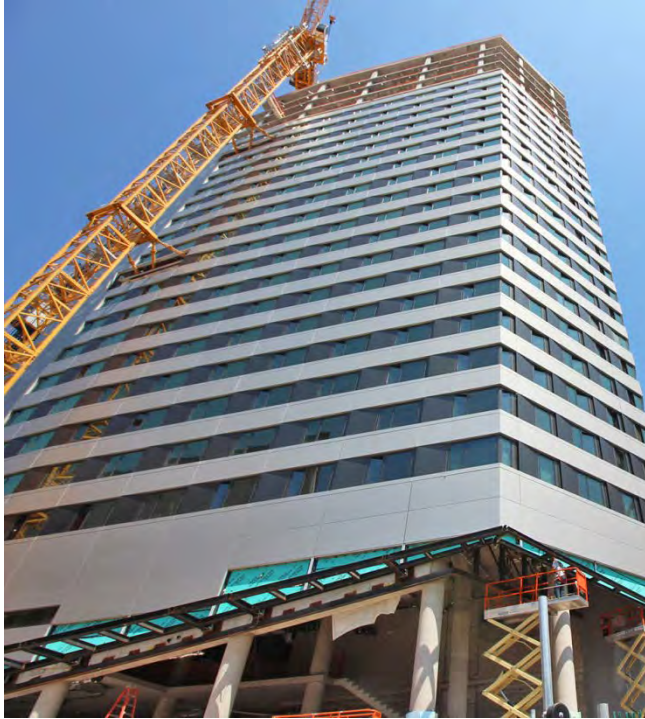
1. Can the NYC market consistently deliver Passive House construction?

SustainNYC: Design Objectives

- *Cost competitive with deep affordability*
- *Compliance with HPD design objectives*
- *Incorporates Community vision*



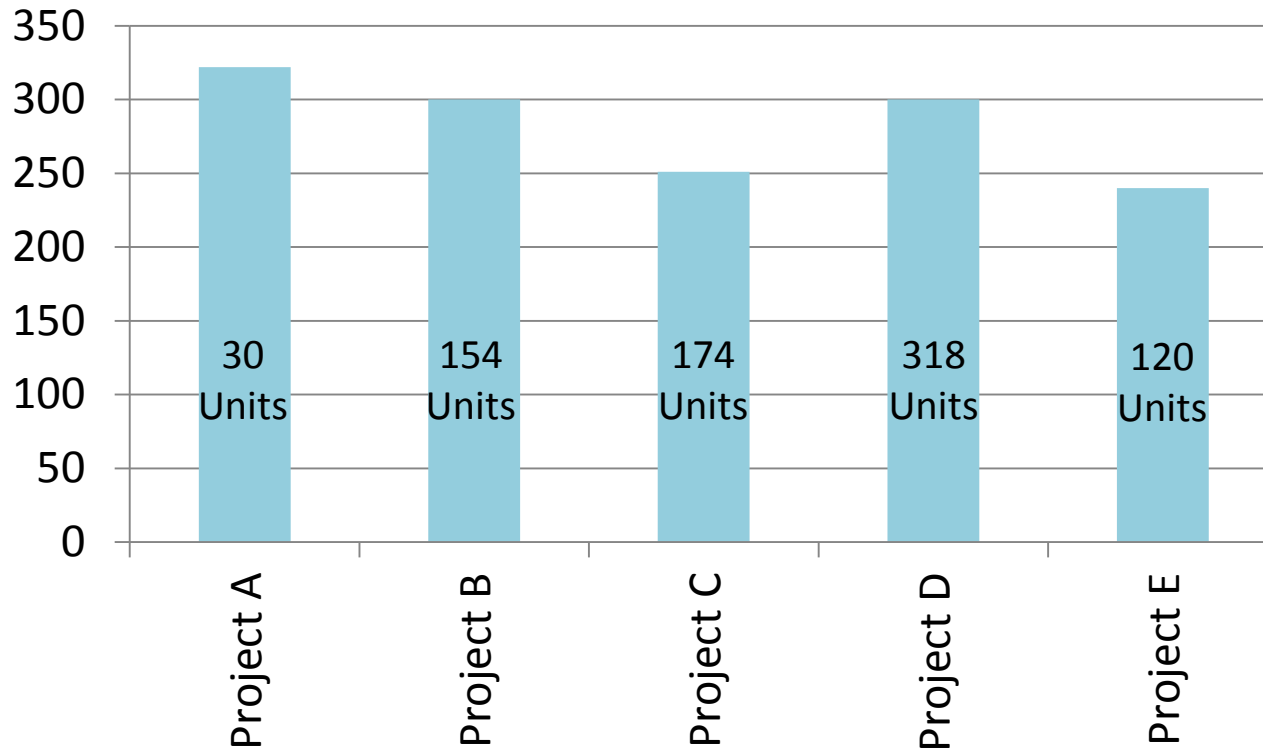
2. What is the price point of Passive House construction?



2. What is the price point of Passive House construction?

- Construction costs for current HPD Passive House projects FY2016:

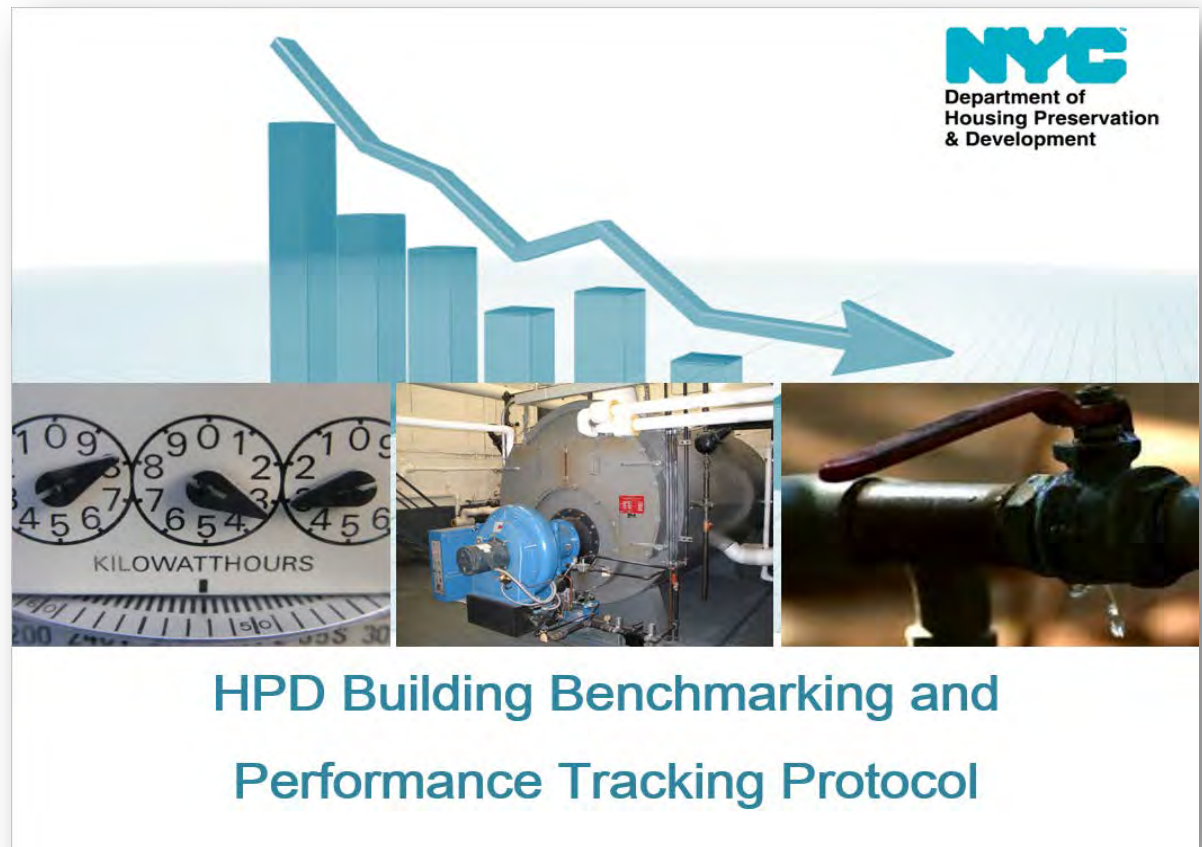
Hard Costs (\$/ft²)



- Underwriting savings key to financing Passive House at scale

3. *Are the savings real and sustainable?*

- Performance data at scale
 - LL84
 - HPD benchmarking initiative



NYC's Passive House portfolio



425 Grand Concourse



Knickerbocker Commons



Hanac Corona Senior



Beach Green North

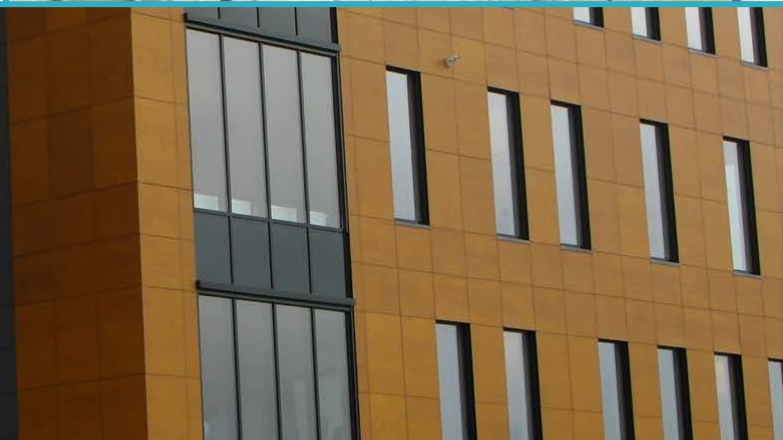
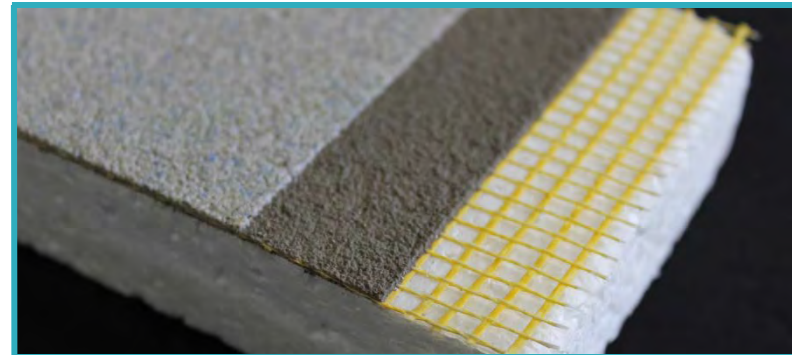


Private Sites

- Certified project
- Built to Passive House standards
- HPD Financed**
- ✓ Completed project
- Anticipated project

4. Are there valid long term concerns with maintenance & operations?

- Durability
 - EIFS
 - Cement panels
- Maintenance of ERVs
- Durability of air barriers over time



SustainNYC: Passive House Goals

1. *Test feasibility in large scale mixed use developments*
2. *Assess development cost of Passive House in NYC*
3. *Test local market*
4. *Assist in developing a more robust local market*

SUSTAINNYC

Achieving Community, Economic and Environmental Sustainability through Passive House Design
East Harlem, Manhattan



Request for Proposals

Issue Date: May 23, 2016

Pre-Submission Conference: June 15, 2016

Proposal Submission Deadline: August 23, 2016



Mayor, Bill de Blasio
Deputy Mayor, Housing and Economic Development, Alicia Glen
Commissioner, NYC Department of Housing Preservation and Development, Vicki Been



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nyc.gov/hpd