

# #ONENYC

## MAPC'S 2017 CLEAN ENERGY FORUM: PLANNING FOR NET ZERO October 11, 2017

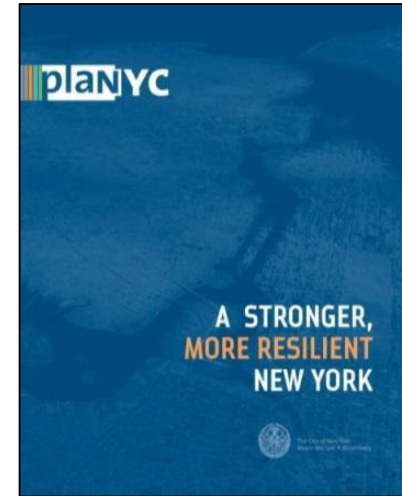
Susanne DesRoches, NYC Mayor's Office  
Deputy Director for Infrastructure and Energy



# Building on a Strong Foundation

OneNYC builds on earlier efforts to take action on climate change during the prior administration.

Pre-2014

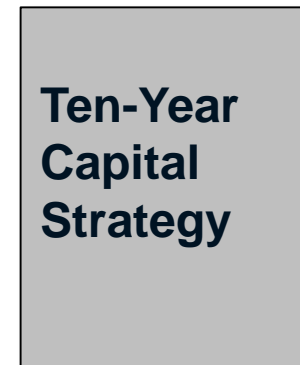
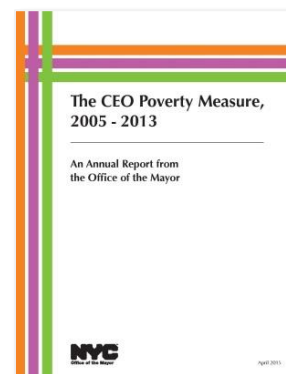
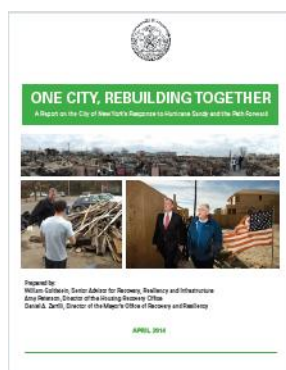
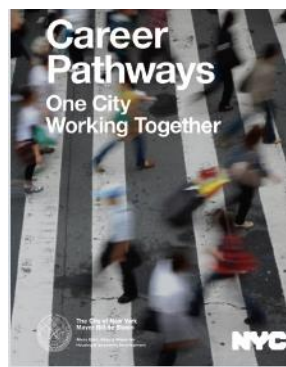
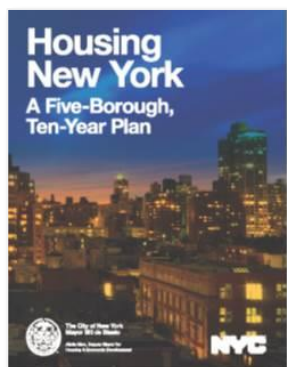
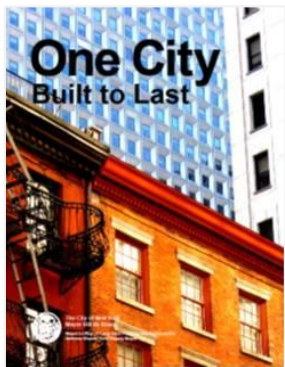


# Post-2014 Initiatives

OneNYC broadened the focus by integrating other commitments, plans, and priority programs developed prior to the release of the resilience strategy.

2014

2015



# OneNYC

On April 22<sup>nd</sup>, 2015, Mayor Bill de Blasio released a new long-term strategic plan to address our most pressing challenges.



OneNYC recognizes a historical moment: in 2025, we will celebrate our 400<sup>th</sup> anniversary and **begin our fifth century**

The plan **envisions** how we want our City to look in ten years and beyond

We commit to the **goals and initiatives** designed to achieve that long-term vision

# OneNYC: Our Four Visions

This plan is organized across four strategic visions for growth, equity, sustainability, and resiliency.



**Our Growing,  
Thriving City**



**Our Just and  
Equitable  
City**



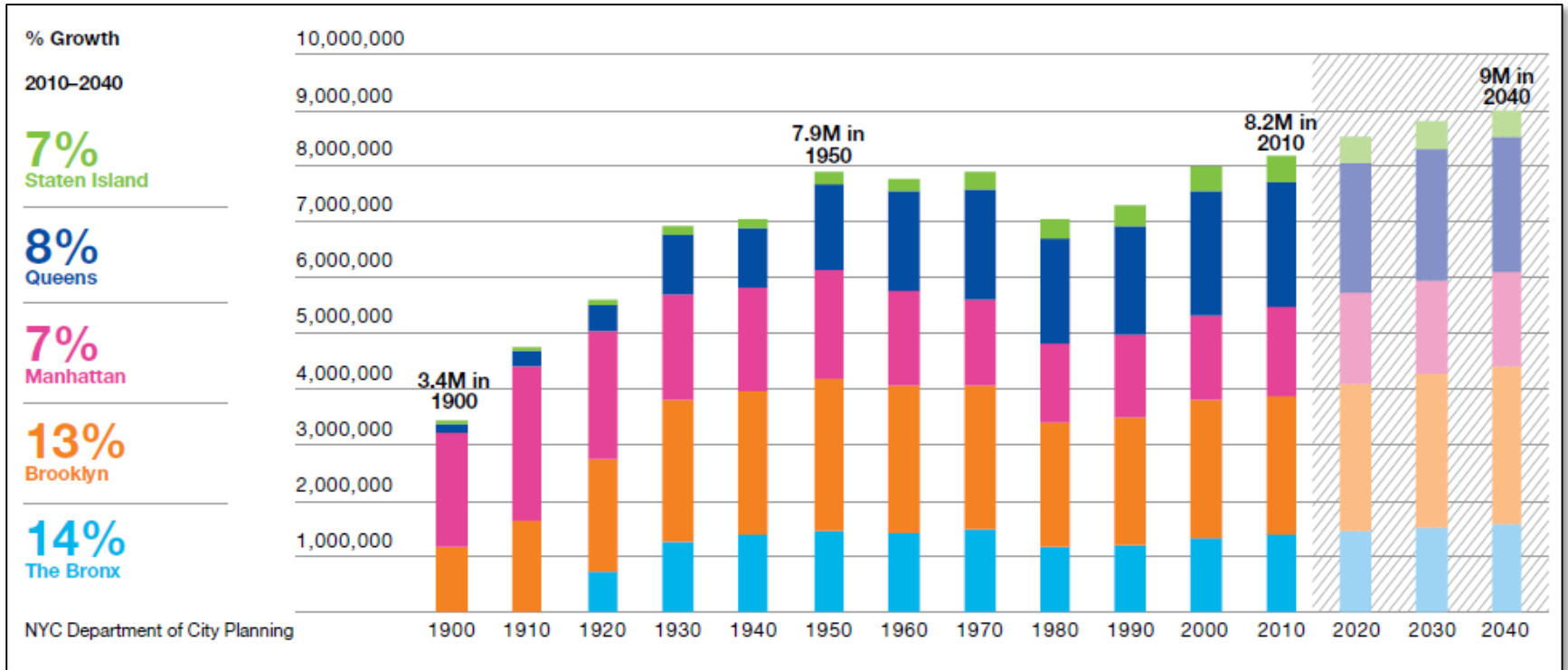
**Our Sustainable  
City**



**Our Resilient  
City**

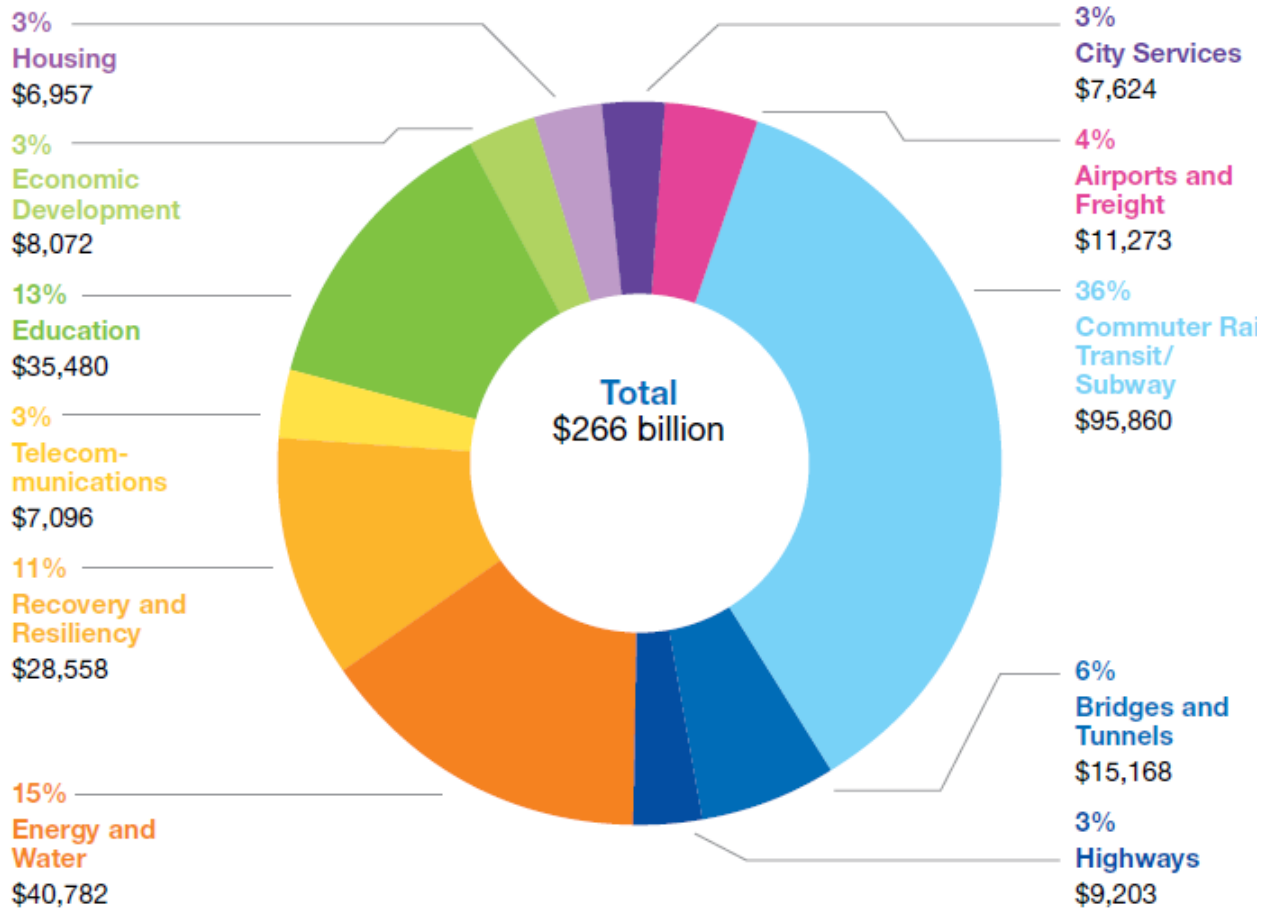
# Challenges: A Growing Population

New York City is on track to reach 9 million residents by 2040, as our population is aging and transforming to be more diverse.



# Challenges: Aging Infrastructure

The ten-year estimate (in \$ millions) anticipated in capital spending by the City of New York and regional agencies.



# Challenges: Poverty and Income Inequality

In 2015, nearly half of New York City residents lived in poverty or near poverty.<sup>1</sup>



23.6%  
Near Poverty

15.8%  
Poverty

5.7%  
Extreme Poverty

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45.1% Total

<sup>1</sup> Near poverty defined as below 150 percent poverty threshold; poverty defined as \$31,156 threshold for a family of four; extreme poverty defined as below 50 percent poverty threshold.

Source: The CEO Poverty Measure, 2013



# Challenges: A Changing Climate

As we look toward the future, we must grapple with the impacts of climate change on our city, as we witnessed firsthand during Hurricane Sandy.



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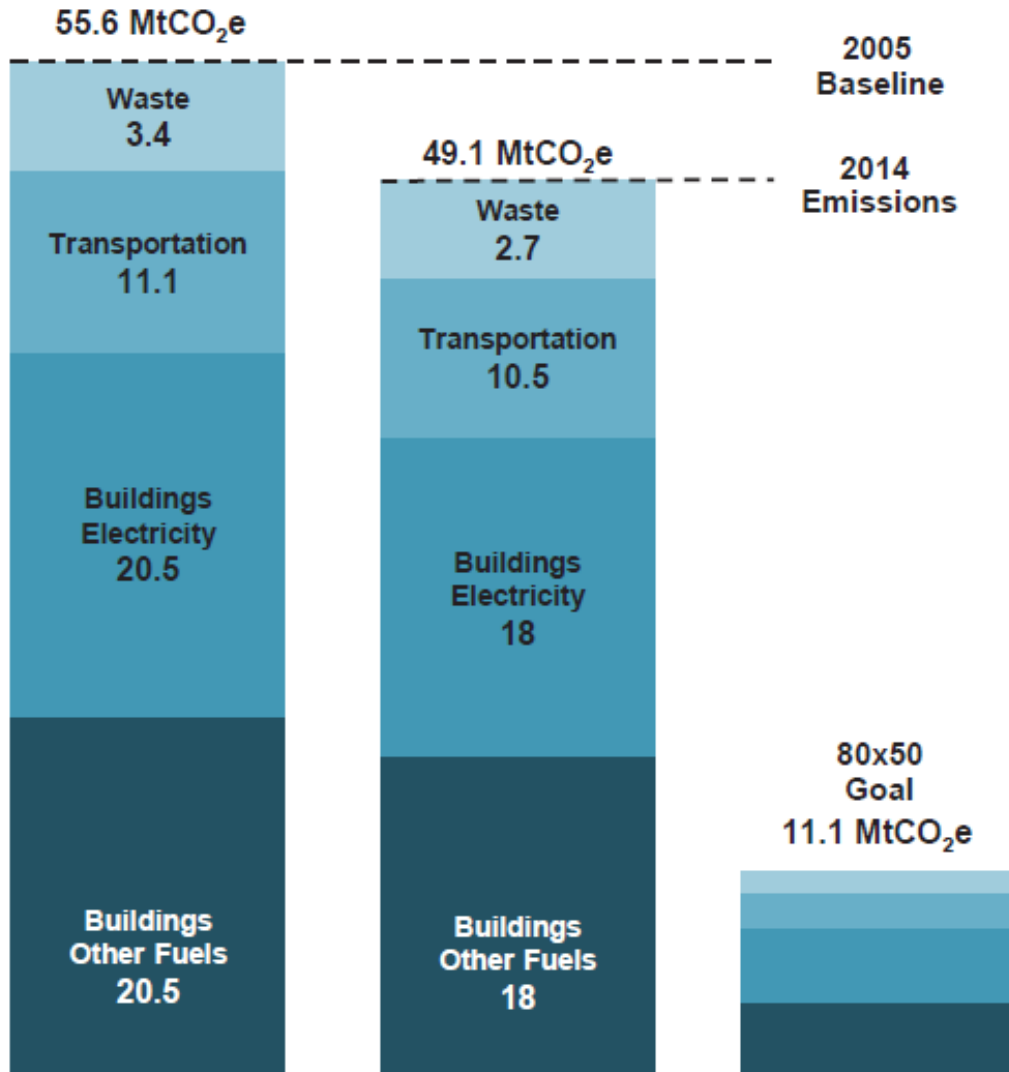
**Our Resilient  
City**

# OneNYC: Roadmap to Achieve 80x50



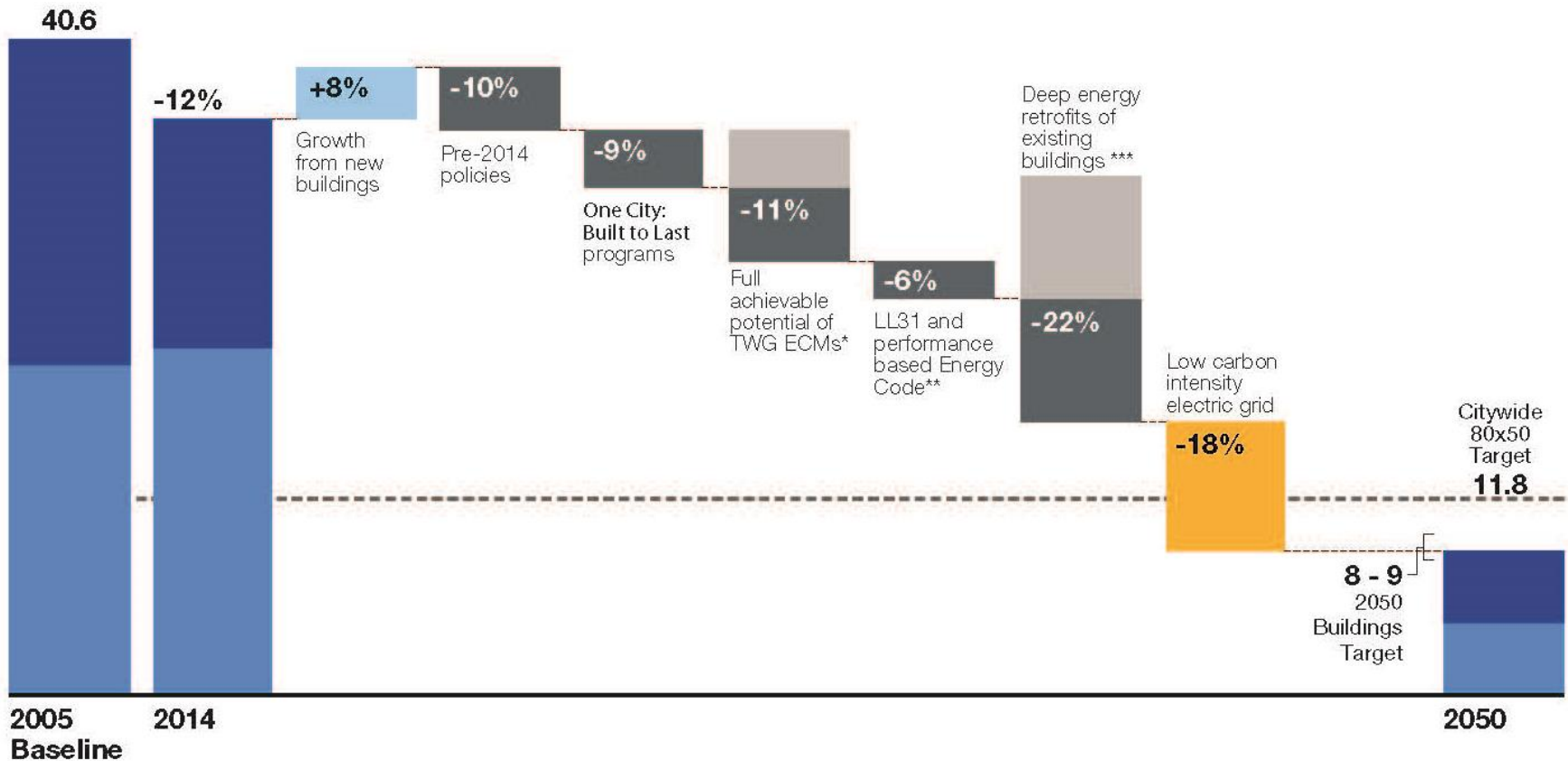
- First-of-its-kind integrated modeling of the city's GHG emissions across four sectors: energy, buildings, transportation, and waste
- Analysis of the trends that will drive future GHG emissions
- Understanding that 80x50 will be less of a technical challenge, more of a societal, financial, and institutional challenge
- Opportunity to align 80x50 investments to achieve expanded job access and economic inclusion

# OneNYC: NYC's 80 x 50 Commitment



Total Reduction = **44.5 million metric tons** of carbon dioxide equivalent (MtCO<sub>2</sub>e)

# OneNYC: NYC's 80 x 50 Requires...



All percent reductions are relative to the 2005 Buildings emissions baseline

- Electricity
- Other Fuels
- One City Built to Last Overlap

- \* Full implementation of TWG ECMs includes 100% overlap with One City: Built to Last initiatives
- \*\* Assumes a 50% reduction from ASHRAE 2013 standards for new construction and substantial renovations in public buildings beginning in 2017, and a 70% reduction from ASHRAE 2013 standards implemented in 2022 for both public and private buildings.
- \*\*\* Includes 100% overlap with One City Built to Last initiatives and TWG ECMs. 50-60% of buildings implement strategies that include high efficiency electric technologies for heat and hot water.

# 80 x 50: To achieve 80 x 50

## **Buildings:**

- Complete deep energy retrofits that reduce energy use by 40-60%
- Transition away from fossil fuels for certain systems
- Maximize on-site renewable energy
- Improve operations and maintenance to increase energy efficiency
- Empower residents and tenants to reduce energy use

## **Energy sector:**

- Transition to a renewable energy-based grid
- Increase transmission capacity
- Expand the use of clean distributed energy resources

## **Waste sector:**

- Reduce methane from landfilled waste
- Reduce emissions related to waste processing
- Achieve Zero Waste
- Achieve Net-Zero Energy at all 14 in-city wastewater treatment plants

## **Transportation sector:**

- Shift away from personal vehicles
- Adopt low carbon fuels and vehicles
- Improve efficiency of the transportation network
- Improve freight efficiency
- Improve the electricity grid

# OneNYC: City Action on the Paris Agreement

Even before the federal government's withdrawal from the Paris Climate Agreement, the City has taken aggressive actions to commit to this global accord.

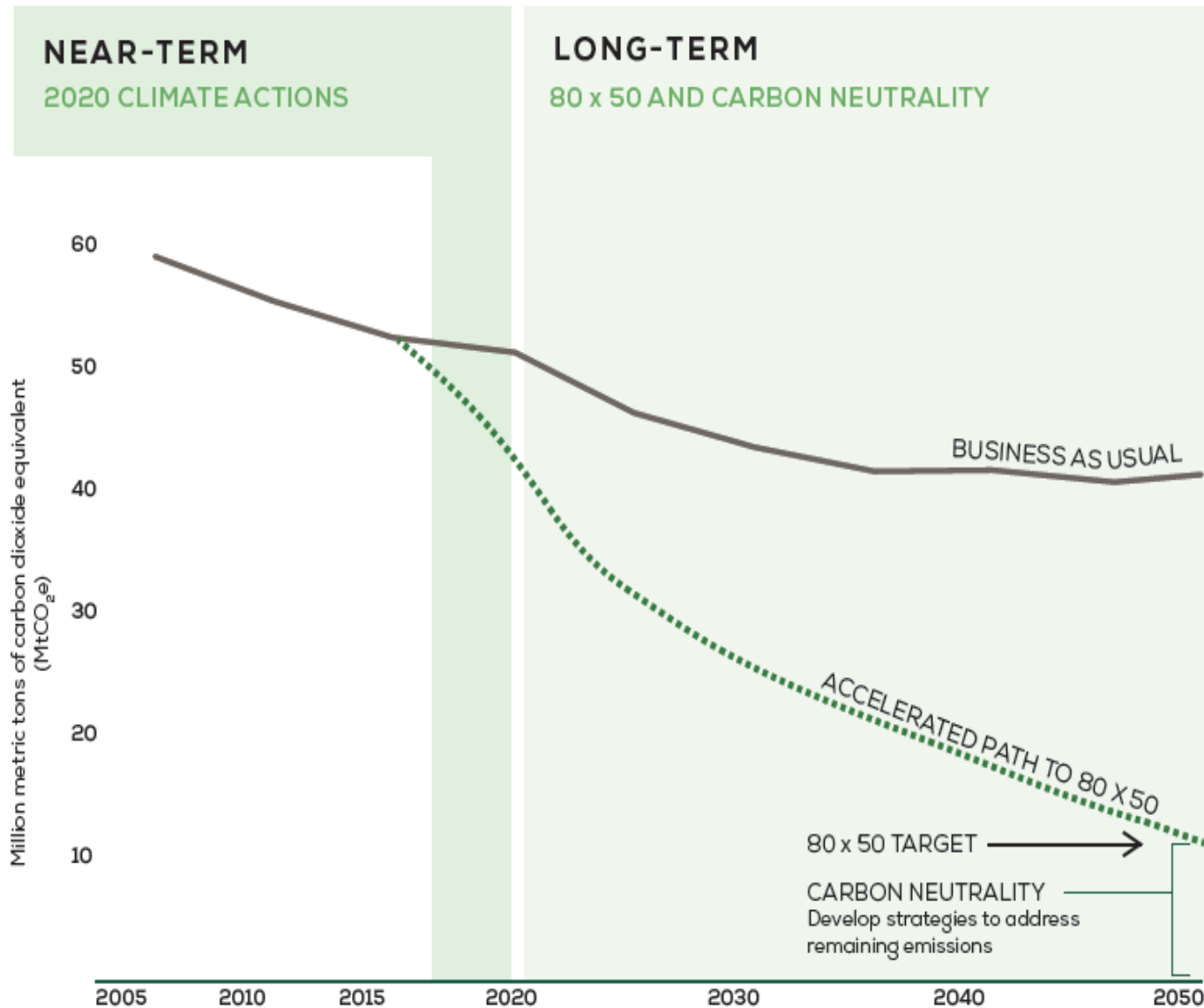


## KEY ACTONS

- Signed Executive Order 26 committing City agencies to identify actions that fulfill the Paris Agreement
- Committed to investing \$2.6 billion to retrofit every City-owned building by 2025
- Announced a mandate requiring retrofits for energy efficiency to all large buildings, public and private
- Invested \$10 million to pilot fast-charging hubs for electrical vehicles at locations across the five boroughs



# OneNYC: New York City's 1.5°C Strategy



# 1.5°C: Major Actions to Implement by 2020



## Climate Change Leadership

- Develop protocol for carbon neutrality for cities
- Advocacy for carbon pricing at the national level



## Reduced and More Efficient Consumption

- New program to accelerate deep energy retrofits across City buildings
- Existing buildings energy intensity mandate
- Property Assessed Clean Energy (PACE) Financing
- Advanced new buildings codes
- Organics separation
- Expand bike lanes by 50 miles/year and double number of active cyclists by 2020

# 1.5°C: Major Actions to Implement by 2020



## Transition to Clean Energy

- Use City's purchasing power to procure 100% renewable electricity for City ops
- Advocate for a more renewables-based grid
- Expand EV infrastructure
- Achieve a 50% reduction in fossil fuel consumption in City's vehicle fleet by 2025 by continuing to upgrade and replace vehicles
- Accelerate solar deployment (~1,000 MW by 2030)



## Buildings Mandate

- 14,500 buildings to meet fossil fuel standards by 2030
- Lead: Mayor's Office of Sustainability
- GHG Impact: 7% reduction
- Benefits: Quality jobs, economy & innovation, long-term cost savings, health & wellbeing

**#ONENYC**

[nyc.gov/OneNYC](http://nyc.gov/OneNYC)

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