

#ONENYC

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

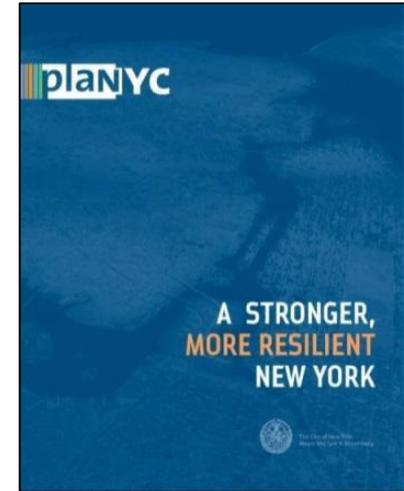
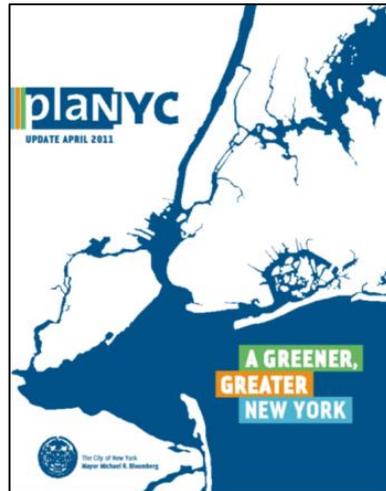
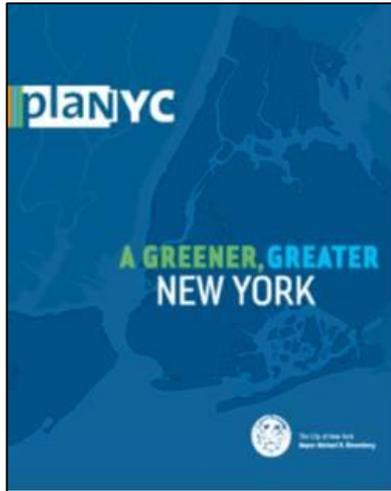
Susanne DesRoches, NYC Mayor's Office
Deputy Director for Infrastructure and Energy



Building on a Strong Foundation

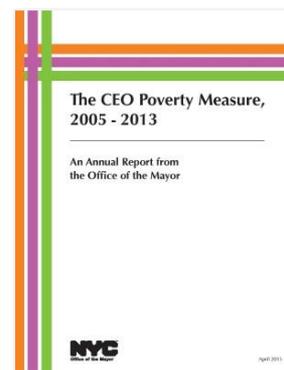
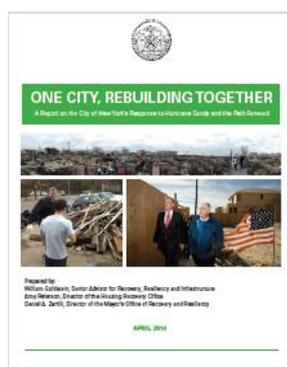
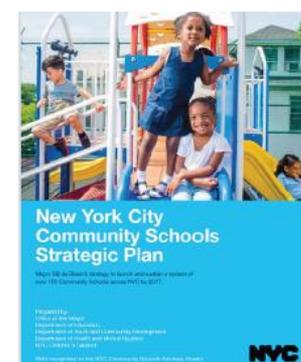
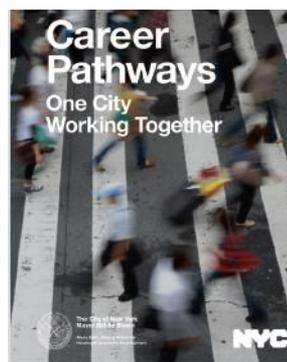
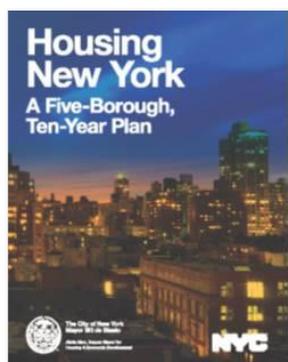
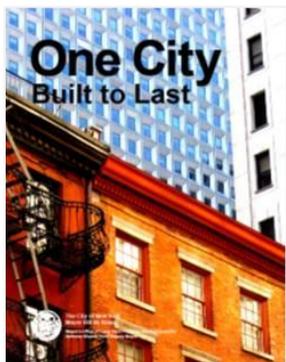
OneNYC builds on earlier efforts to take action on climate change during the prior administration.

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.



OneNYC

On April 22nd, 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 400th 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**



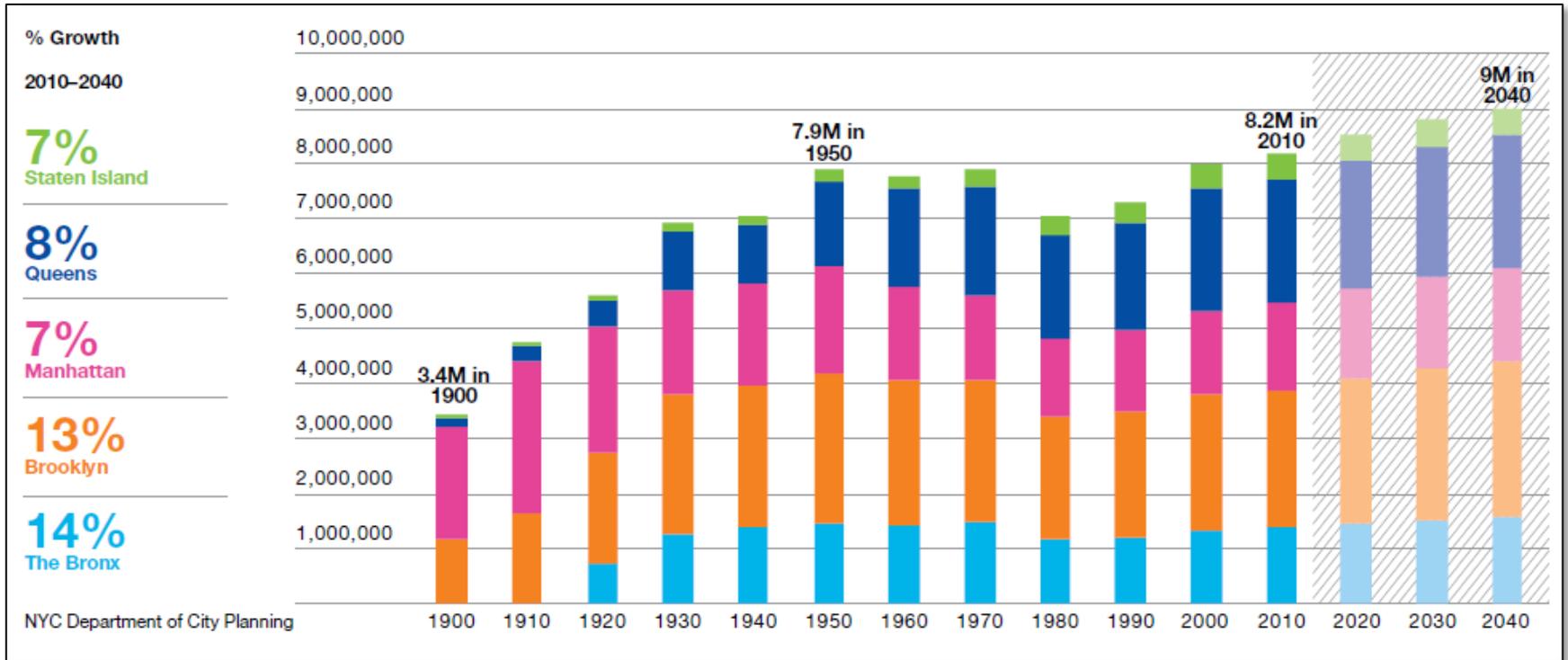
**Our Sustainable
City**



**Our Resilient
City**

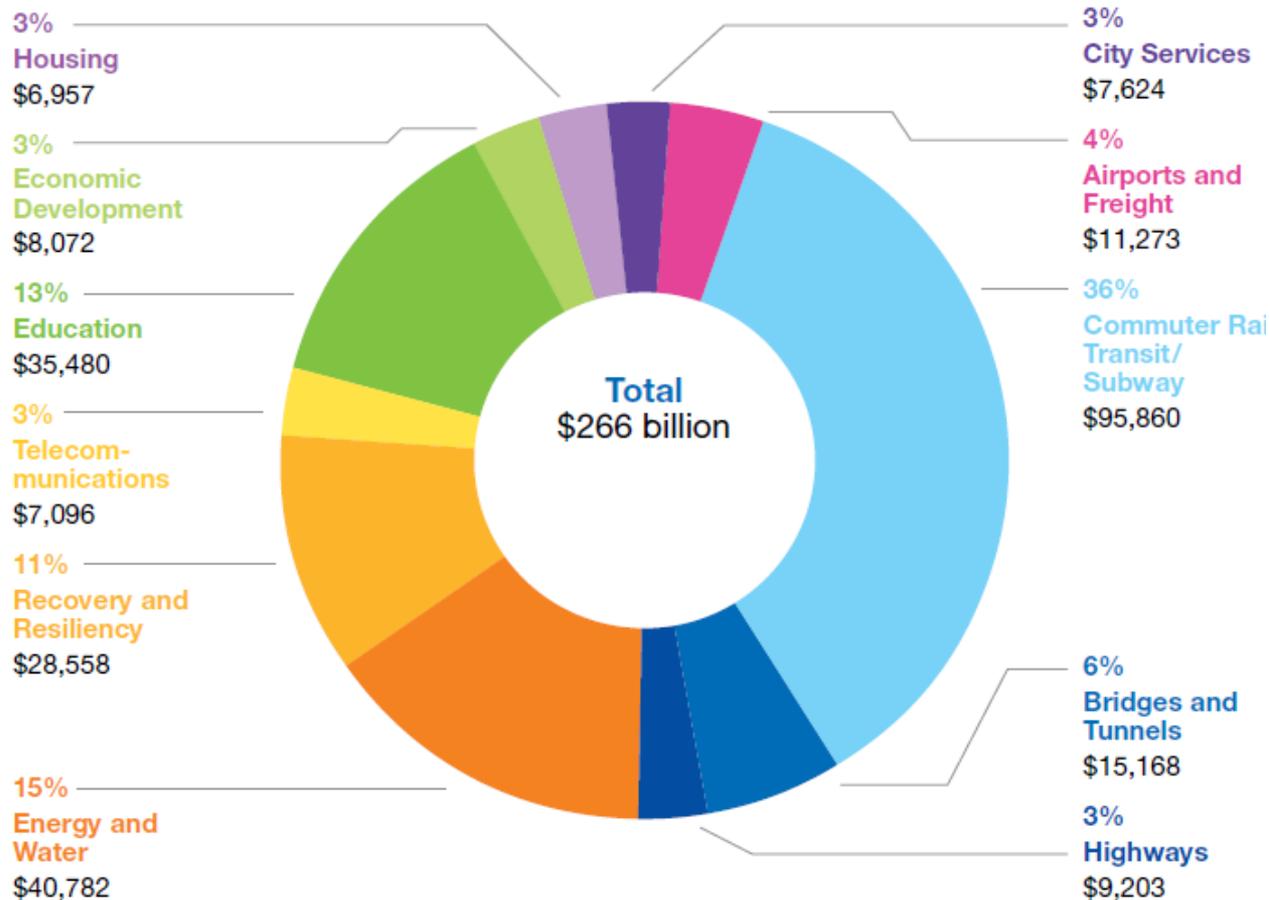
Challenges: A Growing Population

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.¹



23.6%
Near Poverty

15.8%
Poverty

5.7%
Extreme Poverty

45.1% Total

¹ 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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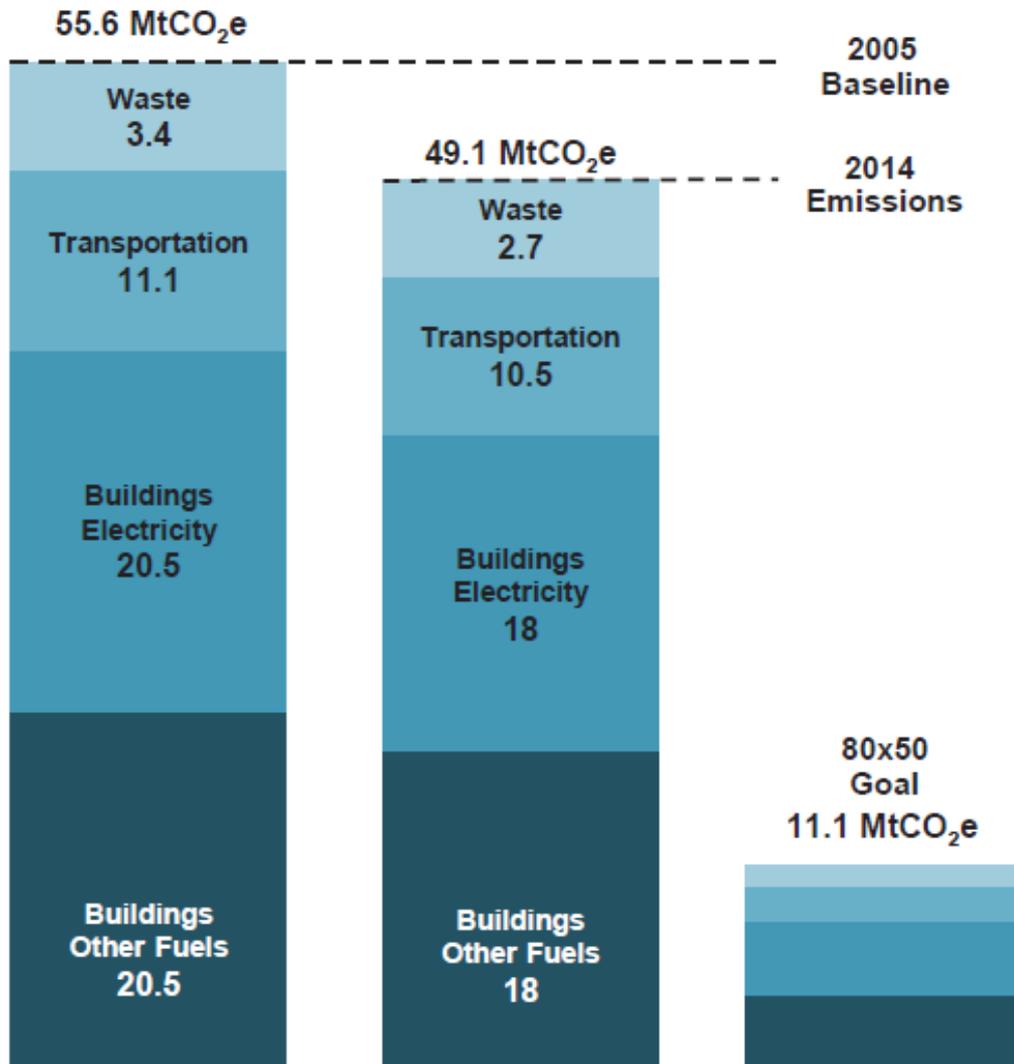
**Our Resilient
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OneNYC: Roadmap to Achieve 80x50



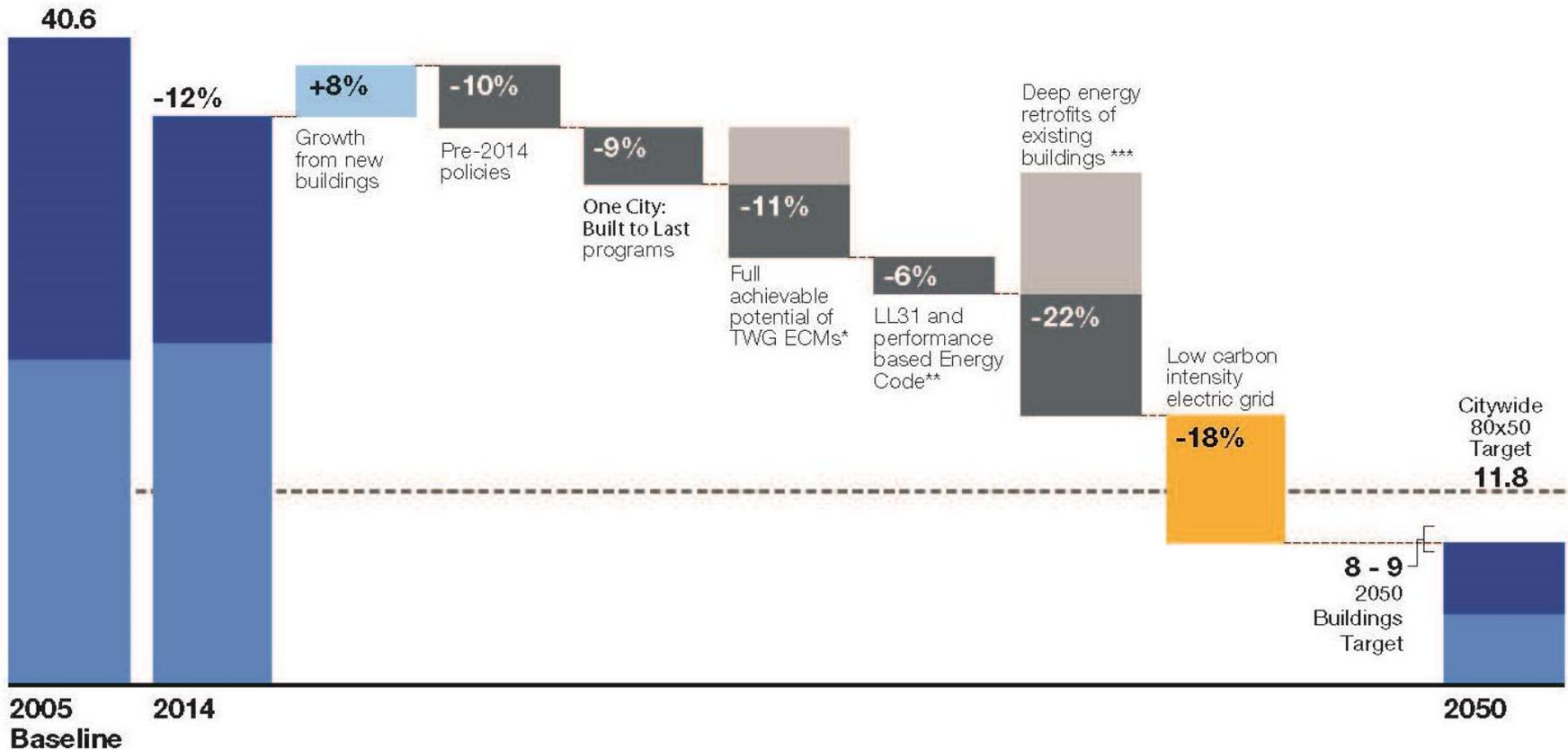
- First-of-its-kind integrated modeling of the city's GHG emissions across four sectors: energy, buildings, transportation, and waste
- Analysis of the trends that will drive future GHG emissions
- Understanding that 80x50 will be less of a technical challenge, more of a societal, financial, and institutional 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 (MtCO₂e)

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

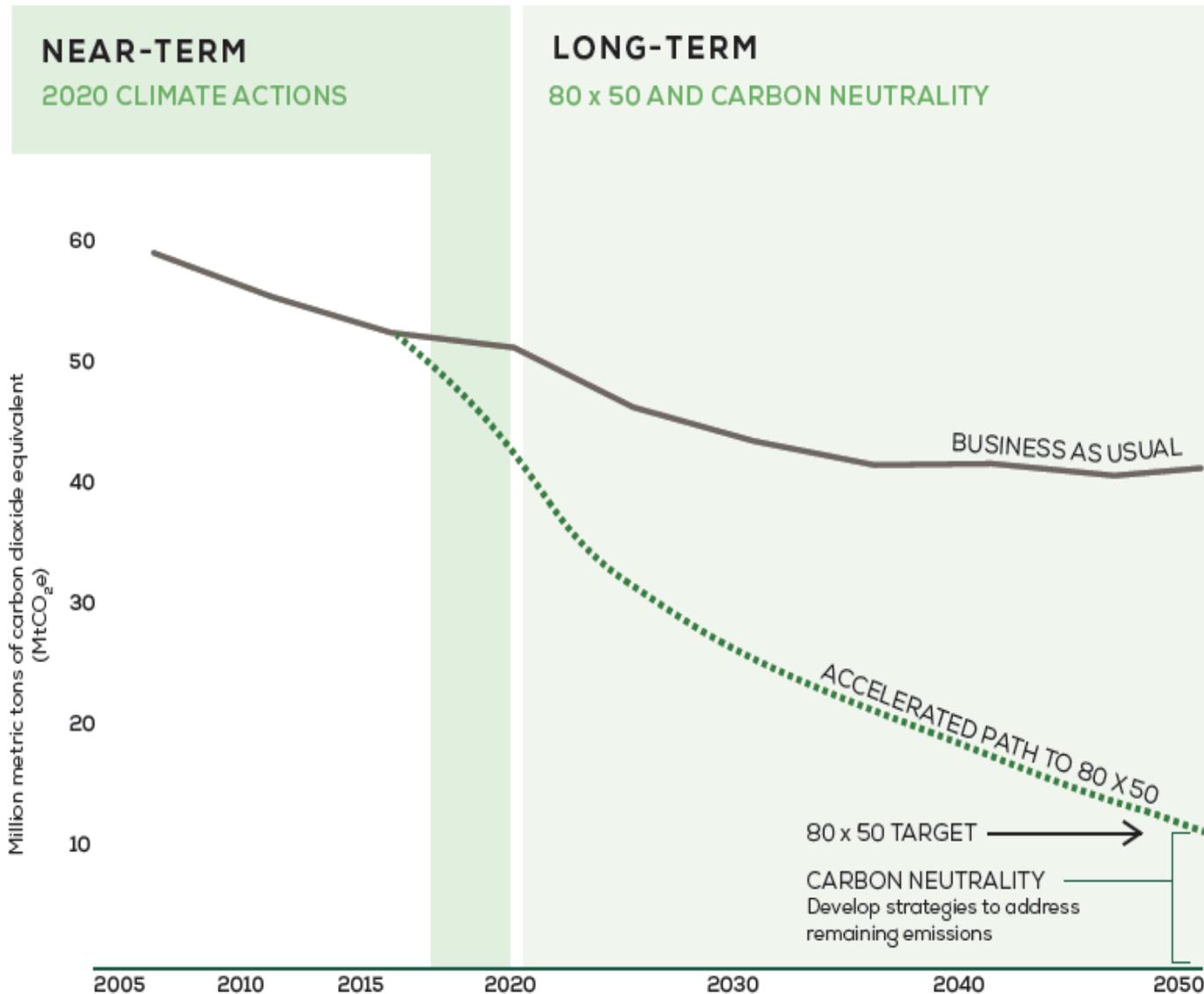
Even before the federal government's withdrawal from the Paris Climate Agreement, the City has taken aggressive actions to commit to this global accord.



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

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