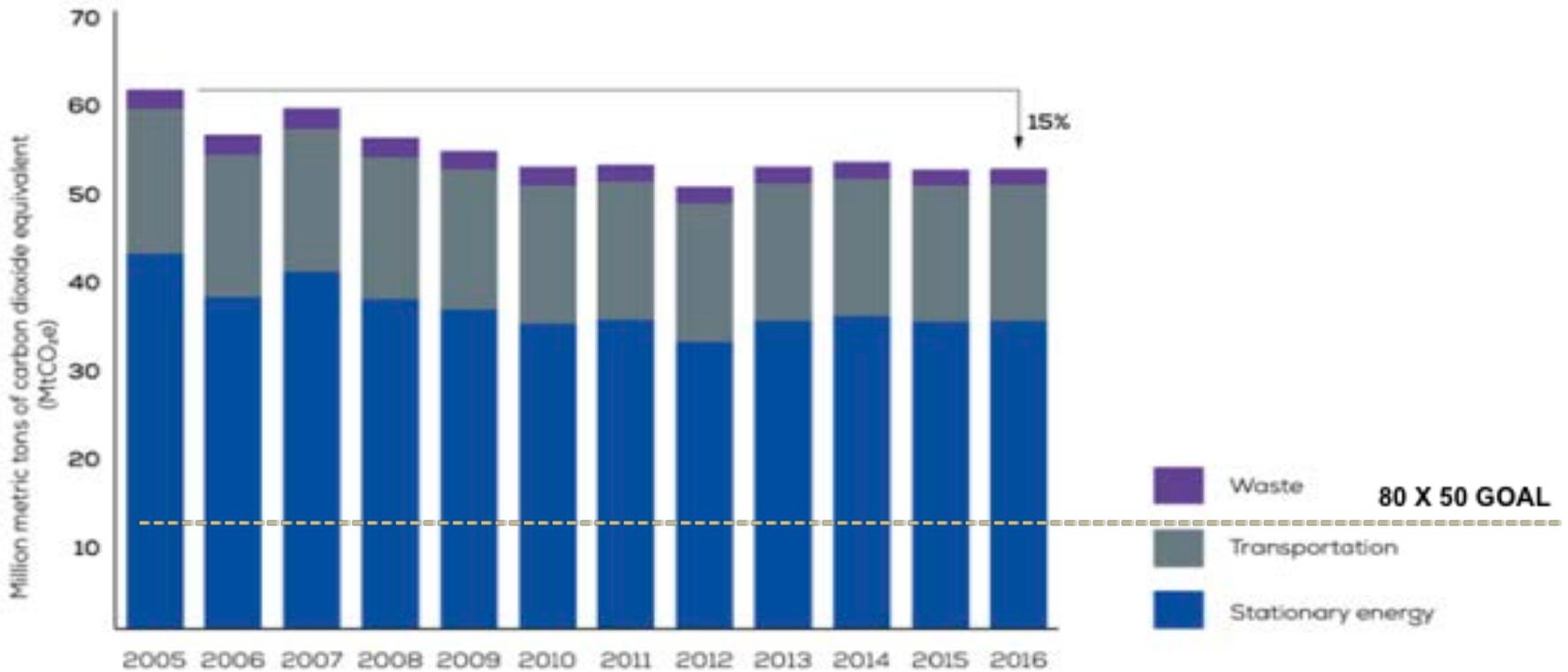


nyc 80x50 policies

15% ghg reduction since 2005

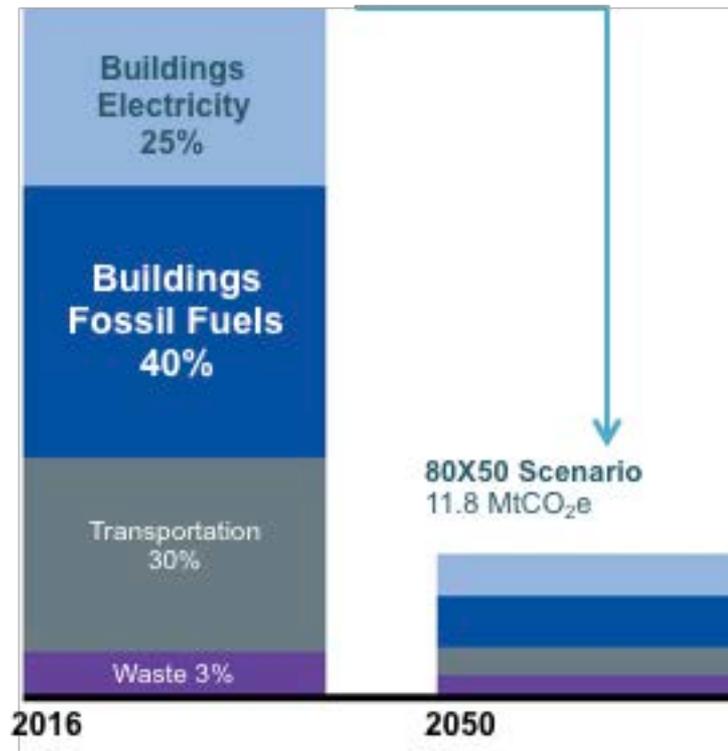
CITYWIDE ANNUAL GHG EMISSIONS BY SECTOR



nyc 80x50 policies

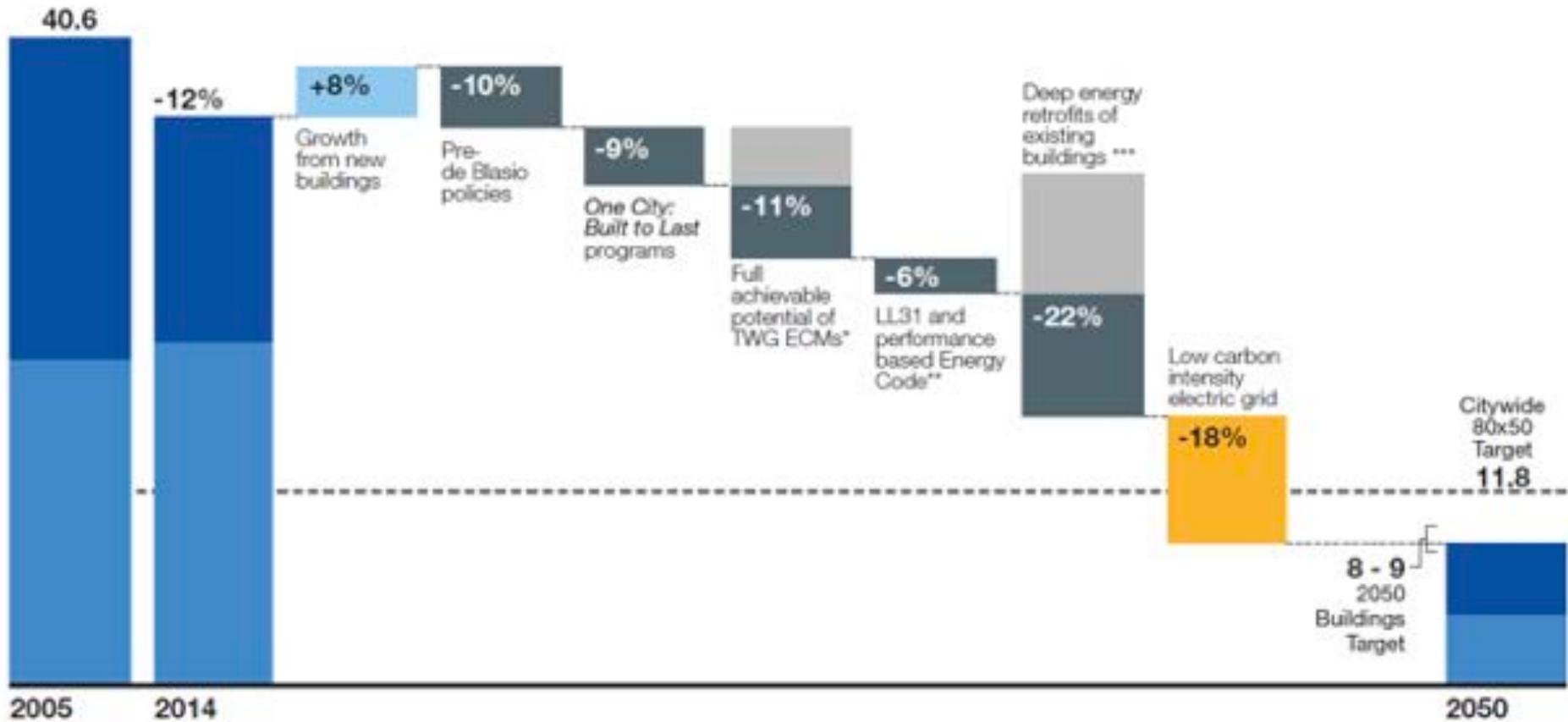
70% of NYC's ghg emissions need to come from buildings

NYC GHG Emissions
51.7 MtCO₂e



nyc 80x50 policies

deep retrofits required in most all buildings + phase out fossil fuels



nyc 80x50 policies

codes and regulations

2016 Energy Code Update

2019 Energy Code with 20% improvement

2020 Energy Grades on Large Buildings

2022 Energy Code with 20% improvement

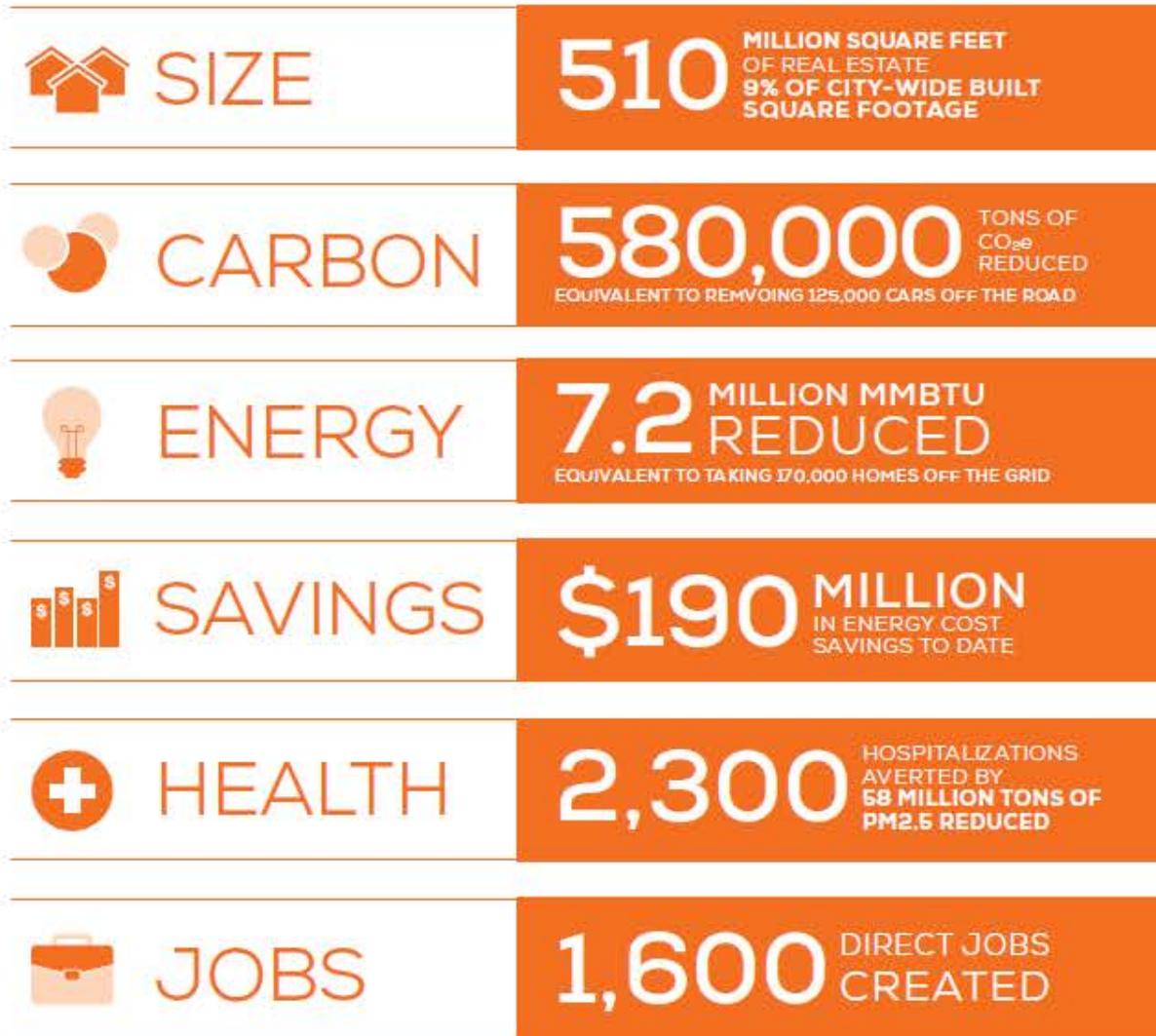
2025 Low-Energy Design Performance Standard for NB

2025 Lighting Upgrades and Submetering in Large Buildings

2030 *Energy Performance Mandate for Existing Buildings (tbd)*

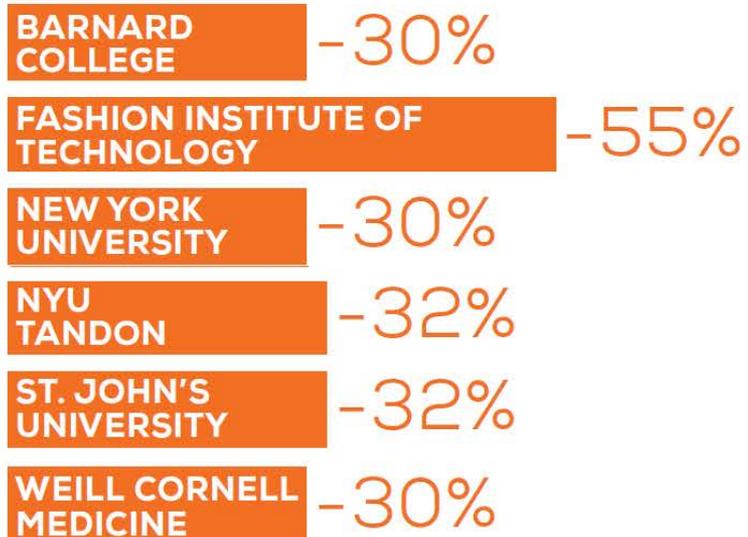
NYC Carbon Challenge

Leading the way in greenhouse gas



Early Achievers

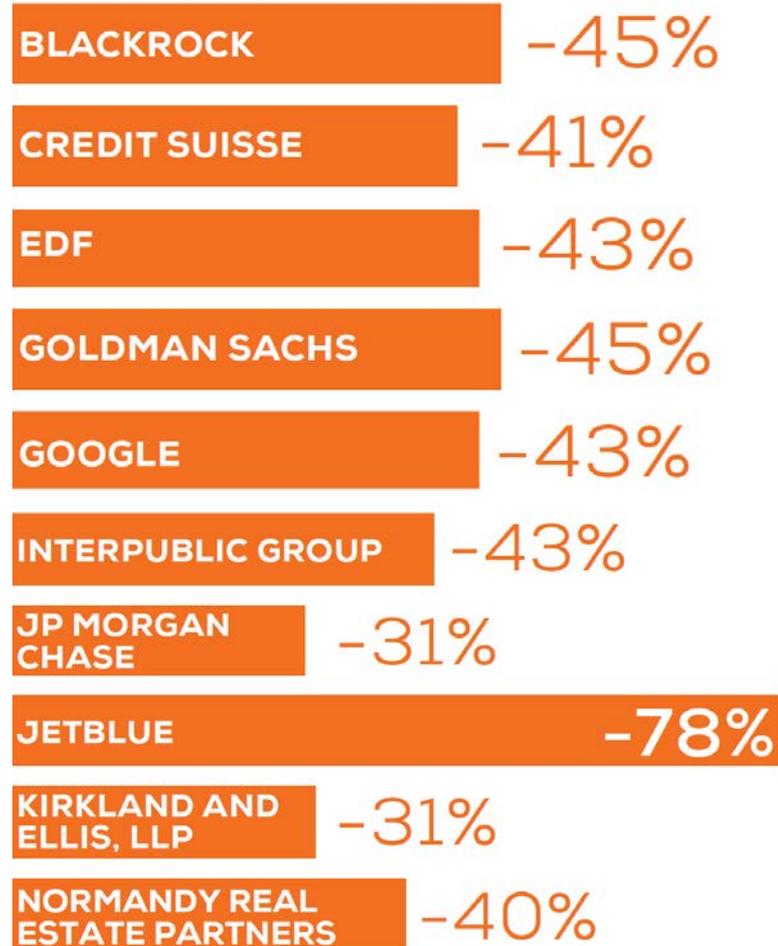
COLLEGES & UNIVERSITIES



HOSPITALS



COMMERCIAL



Colleges and Universities

BARNARD COLLEGE 50%
BERKELEY COLLEGE 40%
CITY UNIVERSITY OF NEW YORK 40%
COLUMBIA UNIVERSITY 40%
THE COOPER UNION 40%
FASHION INSTITUTE OF TECHNOLOGY 50%
FORDHAM UNIVERSITY 40%
THE NEW SCHOOL 40%
NEW YORK UNIVERSITY 50%
NYU TANDON SCHOOL OF ENGINEERING 50%
PACE UNIVERSITY 40%
PRATT INSTITUTE 40%
THE ROCKEFELLER UNIVERSITY 40%
SCHOOL OF VISUAL ARTS 50%
ST. JOHN'S UNIVERSITY 40%
WAGNER COLLEGE 40%
WEILL CORNELL MEDICINE 40%

Hospitals

MAIMONIDES MEDICAL CENTER 40%
MEMORIAL SLOAN-KETTERING
CANCER CENTER 50%
MONTEFIORE MEDICAL CENTER 50%
MOUNT SINAI HEALTH SYSTEM 40%
NEWYORK PRESBYTERIAN HOSPITAL 40%
NEWYORK PRESBYTERIAN QUEENS 50%
NORTHWELL HEALTH 40%
NYC HEALTH + HOSPITALS 50%
NYU LANGONE HEALTH 50%

Retail

AMALGAMATED BANK

BANK OF AMERICA

BARNES AND NOBLE

CITI

JUST SALAD

L'ORÉAL

LE PAIN QUOTIDIEN

LOWE'S

SPRINT

TD BANK

VERIZON

WARBY PARKER

ny state - clean energy fund

statewide energy policy

- 10 year, \$5 billion commitment
- 2016-2025
- shift from incentives to market transformation
- reduce cost, accelerate adoption
- mobilize private investment



ny state – 2030 energy plan

policy goal set in 2015

2030 Goals

- 40% GGH reduction (1990 baseline)
- 50% electricity from renewables
- 23% reduction in building energy use (2012 baseline)
(600 trillion BTUs)

2050 Goals

- 80% GGH reduction (1990 baseline)
- Aligns State with City target



ny state – 2025 target

new energy efficiency target

- Further 185 trillion BTU reduction
- 40% beyond 40% by 2030 goals
- Represents 1/3 of 40% by 2030 goals



ny state – REV

reforming the energy vision

creating a 21st century grid

- mix hub-and-spoke model with decentralized generation
- dynamic supply and demand
- pair intermittent sources with storage/load adjustment

significant increase in grid utilization

- current = 54%
- other industries = 80%



performance based regulation + shared savings

pilot: Brooklyn-Queens demand management district

ny state – green bank

public fund to drive private investment

\$1 billion fund, operates like private investment vehicle

motivate \$8 billion in private investment

focus on filling gaps in clean energy markets

\$450 million invested to date (as of March 2018)

\$32 million revenue generated



ny state – retrofitNY

volume market for “net zero” retrofits

connect large scale solutions to large scale portfolios

opportunity: industrialize building retrofits

model: energysprong in the EU

key components:

- tenants in place, limited disruption
- highly insulated, modular building envelope
- new mechanical works
- pair with on site generation

design RFP complete: first cohort begins June 2018



sustainable development goals

connecting global action to local policy



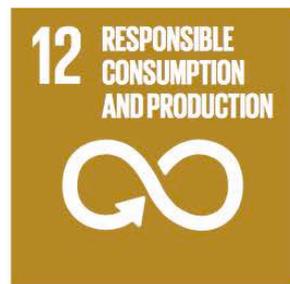
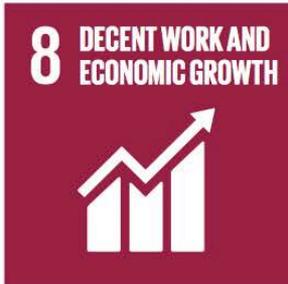
sustainable development goals

SDGs and building efficiency – direct connections



sustainable development goals

SDGs and building efficiency – indirect connections



sustainable development goals

SDGs and building efficiency – catalyst for change





global action.

create a global exchange

scale action through connected active sharing



knowledge
network

global resources to
scale capacity

local
independent

regional action, with
global impact

connected
active sharing

share best
practices, lessons

expertise &
education

local & international
expertise

next generation solutions

training and technology to meet climate action goals



education

productivity

integration

monitoring

professionals and
tradespeople

industrialize
construction

modular systems,
integrated benefits

smart, continuous
operations

united nations - nice

international centers of excellence in building energy efficiency



new york
usa

vancouver
can

wexford
irl

brussels
bel

a growing, connected network of local action and global cooperation

I'M CHANGING
THE CLIMATE!

AUG California
6APN616



**be
ex**

thank you.

**building
energy
exchange**