THE NEW YORK CITY GREENER, GREATER BUILDINGS PLAN

New York is a city of buildings. They are where we live, work, and play; they make up the skyline that identifies our city to the world.

The electricity, heating, and hot water we consume in buildings accounts for 75% of our greenhouse gas footprint, and $15 billion per year in energy costs. The city's largest buildings – over 50,000 square feet – comprise nearly half of our total space.

Making these existing buildings energy efficient is the biggest step we can take towards a greener, greater New York.

Working together, Mayor Bloomberg and City Council Speaker Quinn and her colleagues created a six-part plan to make our existing large buildings energy efficient. The City Council recently passed the four legislative components of the plan. This effort relies on existing technology only, and low-cost measures that have proven track records.

This plan will ultimately save New Yorkers $700 million in energy costs annually, improve conditions for tenants, create 17,800 construction jobs, and reduce our greenhouse gas emissions by almost 5% – the largest single advance towards our 30% goal.

PLANYC
A GREENER, GREATER NEW YORK

The New York City Council
Speaker Christine C. Quinn

The City of New York
Mayor Michael R. Bloomberg

The Greener, Greater Buildings Plan promotes cost-effective steps to create significant economic and environmental impacts.

CREATES JOBS

This package will create 17,800 construction-related jobs in energy auditing, retro-commissioning, upgrading lighting, and maintaining equipment. Some of these will be new jobs, while some will be additional work for current skilled workers.

IMPROVES OUR ENVIRONMENT

75% of New York City's carbon footprint comes from energy used in buildings. The 4.75% citywide carbon reduction impact of this package is more than the entire carbon emissions of Oakland, CA.

SAVES MONEY

Efficiency improvements will pay for themselves and building owners will start saving money quickly. With the high energy prices New Yorkers pay, using less energy is critical to staying competitive.

STIMULATES THE ECONOMY

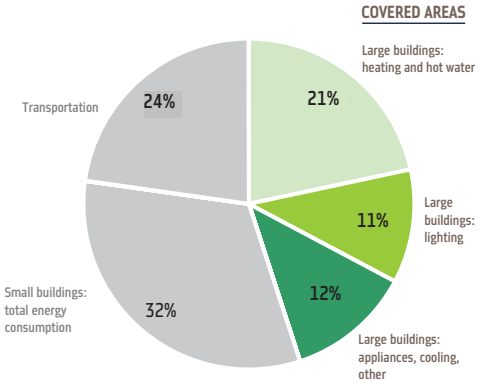
Building owners will be encouraged to comply in advance, to create jobs and savings now. Upgrades would only begin to be required by 2013.

WHERE DO WE USE ENERGY?

New York City's large buildings account for approximately 45% of our total energy consumption. Everybody needs to save, but the Greener, Greater Buildings Plan addresses almost half of our consumption by improving the largest users first.

ENERGY USE IN NEW YORK CITY, 2008*

Total = 725 million MMBTU
Large buildings (>=50k sf)
Small buildings (<=50k sf)



* Energy use (BTU) and carbon emissions are closely related but not exactly the same

WHAT IS RETRO-COMMISSIONING?

Retro-commissioning is a process that improves the energy efficiency performance of existing base building systems, essentially like a tune-up for an automobile. In well-operated buildings, many of these steps are already standard procedure. The retro-commissioning process usually pays for itself in one year or less. Required actions within the retro-commissioning process include:

Operating protocols, calibration, and sequencing

- Properly calibrate heating, ventilation, and air conditioning (HVAC) controls and sensors
- Ensure ventilation rates are appropriate for the current facility requirements
- Check domestic hot water systems to ensure proper temperature settings
- Ensure light levels are appropriate and controls are functioning properly

Cleaning and repair

- Clean HVAC equipment, filters, and light fixtures
- Replace steam traps as required to maintain efficient operations
- Tune boilers for optimal efficiency
- Insulate large pipes for hot and chilled water and steam

Training and documentation

- Ensure all permits for HVAC, electrical, and plumbing equipment are in order
- Provide operations and maintenance staff with appropriate training
- Implement operational and maintenance record-keeping procedures
- Ensure manuals and maintenance contracts are on-site and accessible to operators

New York City's comprehensive six-point plan to improve energy efficiency in existing buildings:

1 New York City Energy Code

Today, our energy standards are controlled by a New York State code that includes a critical loophole – one that no other state has – that allows inefficient equipment to be replaced with similarly inefficient equipment. This legislation creates a local New York City Energy Code and eliminate this unique loophole. This means when a renovation takes place in one of NYC's one million buildings, new equipment will have to meet current standards, resulting in energy reductions and cost savings.

2 Lighting Upgrades and Sub-Metering

A fifth of all NYC's energy is used in lighting – and lighting upgrades routinely pay for themselves in a few years. This legislation requires all large buildings to upgrade their lighting over the next 15 years. The requirement will not apply to residential living spaces. Non-residential tenant spaces over 10,000 square feet are required to be sub-metered by 2025. Sub-metering requires building owners to provide a monthly statement of electricity consumption and charges in certain large tenant spaces.

3 Benchmarking

You can't manage what you don't measure. This legislation requires large buildings to conduct an annual analysis of energy consumption using a free, online tool provided by the U.S. Environmental Protection Agency. Building owners need only know basic information about their building and have their energy bills on hand. Benchmarking provides a simple and effective tool for owners and potential purchasers alike to compare buildings' energy consumption with similar buildings, to start to understand how efficiently it is running. The law will not require residential tenants to disclose information to a landlord.

4 Audits and Retro-Commissioning

Smart energy-saving investments pay for themselves, but knowing which ones work in an individual building requires an energy audit. This legislation requires large buildings to conduct an energy audit once every ten years, and to undertake energy-efficient maintenance practices as part of a retro-commissioning process. On average, energy audits cost 15¢ per square foot. The law will apply to the buildings' central systems, to minimize impacts on individual tenants and ensure that the owner who makes the investment will realize the savings. Large buildings with simple systems will have the option to comply with the law by undertaking a series of pre-approved energy efficiency measures in lieu of the audit.

5 Green Workforce Development Training

These energy-saving improvements require a skilled workforce and create 17,800 construction-related jobs. To ensure that New Yorkers have these skills, the City is partnering with real estate and labor to identify the qualifications and training workers will need to perform these new green jobs. Because building upgrades will be a key economic driver in the new green economy, the New York State Energy Research and Development Authority (NYSERDA) and the U.S. Green Building Council will work with the City to design and fund the training that is required.

6 Green Building Financing

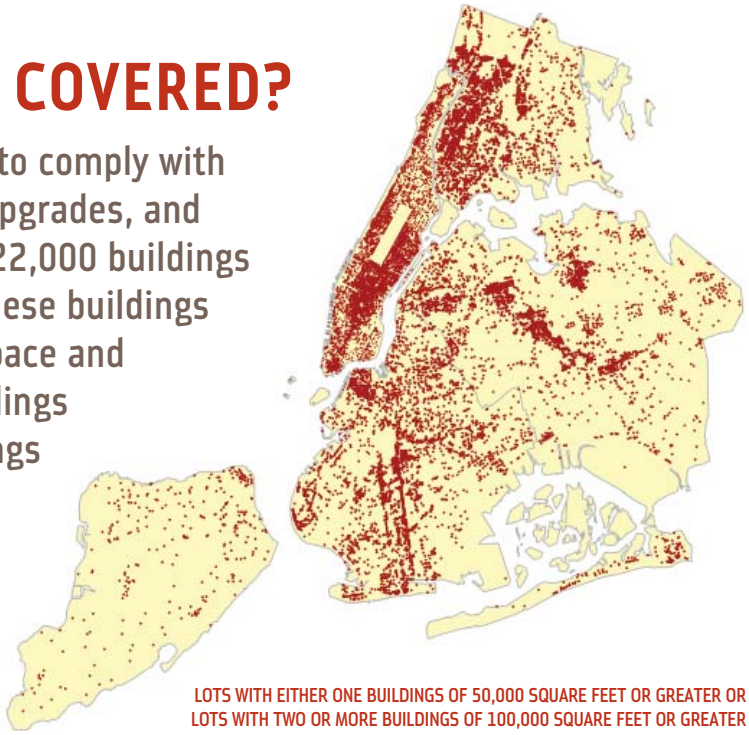
Smart, energy-saving improvements pay for themselves, reduce utility bills and strengthen buildings' financial health; every building can profit from this kind of improvement. However, some owners may not be able to obtain financing to make these upgrades. To begin to assist these owners, New York City was awarded federal stimulus funds to establish a pilot revolving loan fund. Energy savings data will be collected to encourage private sector lending in the long-term.

The New York City Council passed legislation for the New York City Energy Code, Lighting Upgrades and Sub-Metering, Benchmarking, and Audits and Retro-Commissioning on December 9, 2009.

WHAT BUILDINGS WILL BE COVERED?

Buildings over 50,000 square feet will need to comply with new legislation for benchmarking, lighting upgrades, and audits and retro-commissioning. There are 22,000 buildings over 50,000 square feet in New York City. These buildings account for roughly 45% of our total floor space and energy consumption. While these large buildings are most concentrated in Manhattan, buildings like this are all over the city.

All buildings that undergo renovations will be covered under the new New York City Energy Code.



LOTS WITH EITHER ONE BUILDINGS OF 50,000 SQUARE FEET OR GREATER OR
LOTS WITH TWO OR MORE BUILDINGS OF 100,000 SQUARE FEET OR GREATER

"I commend the City of New York for taking this important step in the fight against climate change. This historic action will help New Yorkers become more energy efficient and it is another great example of how cities and states are leading the way in developing emissions reduction strategies. Mayor Bloomberg has been a terrific ally on the environment and I look forward to continuing our partnership as we work to create a greener, more sustainable future." **Governor Arnold Schwarzenegger, State of California**

"This will serve as a roadmap for achieving cost-effective, meaningful greenhouse gas reductions. By addressing energy consumption in existing buildings, Mayor Bloomberg and the City Council are not only leading the fight against climate change, but reducing energy bills and creating thousands of jobs for New Yorkers." **Senator John Kerry, State of Massachusetts**

"Coming during the first days of the Copenhagen climate summit, this package will send out a ray of hope to a world increasingly worried that the challenges of climate change are simply too great for our leaders to meet. The bills passed in New York are the most comprehensive and aggressive local legislation undertaken by a major city in America to reduce greenhouse gas emissions." **Carl Pope, Executive Director, Sierra Club**

"For years, Environmental Justice communities unfairly burdened with toxic infrastructure, unhealthy work conditions, and limited employment opportunities have highlighted the connection between community health and polluting infrastructure. This historic vote speaks to the commitment of New Yorkers to aggressively address climate change, transition to a green economy, provide opportunities for the working class, and set the stage for truly sustainable communities." **Elizabeth C. Yeampierre, Executive Director, UPROSE**

"New York City's new framework for energy efficiency is a classic win-win for the environment and the economy -- and a model for cities everywhere. It will cut pollution, generate new jobs, and help New Yorkers save money by reducing the energy wasted by existing buildings." **Fred Krupp, President, Environmental Defense Fund**