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TESTIMONY TO THE NYC COUNCIL
ON THE GREENER, GREATER BUILDING LEGISLATION
(INTROS 0564-A, 0973, 0476-A & 0967)
Friday, June 26, 2009

Michael P. Fishman
President, SEIU Local 32BJ

Good morning members of the New York City Council. I am Michael Fishman, President of SEIU 32BJ and I appreciate the opportunity to testify before you today. With more than 70,000 members in New York, 32BJ is the largest private sector union in the state. As doormen, supers, office cleaners, school cleaners and security officers, our members are in virtually every building in New York City. Notably, 32BJ members are the only workers in New York's residential buildings, ensuring the proper maintenance and operation of most if not all of the residential buildings covered by the bills we are discussing today. Simply said, our workers are on the front lines of "greening" our City's buildings.

I appreciate the opportunity to comment on the City Council's "Greater, Greener Buildings" legislation. With New York's buildings generating more greenhouse gas than any city in the country, New York can and should take the lead in reducing carbon emissions and conserving energy by passing legislation to make our city and our country cleaner and our environment safer. While we have an interest in all the bills before you today, I would like to focus my comments on one bill in particular, Intro. Number 967, Chairman Gennaro's legislation on audits, retro-commissioning, and retrofits of building systems. Let me begin by stating our support for the Council's effort to make New York the greenest City in the country. The Administration's PlaNYC and this critical piece of building energy legislation will put our City at the forefront of the national drive towards reducing carbon emissions. And as the Council knows, large commercial and residential buildings are exactly the right place to start - in New York City, buildings consume 66% of total energy and generate 77% of city greenhouse gas emissions. So if our City is going to make a dent in reducing energy waste, greening our buildings is the lowest hanging fruit.

The City must not, however, miss a prime opportunity to make sure the jobs that are created from this initiative are good jobs that support New York's working families. The labor and environmental community are united in making sure that green jobs ensure "pathways out of poverty." Indeed, growing the green economy in New York is one of the single best opportunities we have to lift workers out of dead-end jobs and create high-road jobs with living wages, health benefits, and opportunities for training and advancement. This is a critical point that 32BJ has been emphasizing with our "New Deal for New Yorkers" campaign, and this legislation should accomplish no less than that.

Before I get to our recommendations for this legislation, I just want to state why our members, New York City's handypersons, superintendents, and porters, are essential to

the City achieving its goal of reducing emissions by 30% by 2030. Our members know their buildings better than anyone else and are ultimately responsible for all aspects of a building's operations and maintenance. They are the workers best positioned to identify priority green improvements and implement changes consistently over a span of months and years. Inside the building, our members are trained to install low-flow shower heads and toilets, seals air leaks, and install motion detectors on light switches – many of the low-cost but high impact techniques involved in weatherizing buildings. Once energy efficient changes are made, our members keep buildings efficient months and years later by properly maintaining boilers and HVAC systems, identifying additional energy savings as buildings age, and regulating a building's energy use during peak and down times. Building staff offer their expertise to tenants on how they can lower energy costs within their own units. And perhaps most importantly, many of the cost savings projections achieved by energy efficiency measures are dependent on proper long-term maintenance.

In these tough economic times, greener operations of New York City apartment buildings will also provide badly needed relief to building residents and property owners alike. Trained building staff could cut energy costs by 5–10% per year. The energy savings that result can be worth tens of thousands of dollars per year in a single building. If the upper range of these savings were achieved by adoption of green operations and maintenance practices across all of New York's apartment buildings, New Yorkers could save as much as $300 million per year.

32BJ represents workers in 80% of New York City's large apartment buildings, so we are well-positioned to impact the energy performance of a sizeable share of these buildings, including buildings in a significant cross-section of the City's economically and ethnically diverse neighborhoods.

As such, we support this legislation but only with changes prior to passage to guarantee that the green jobs that are created by this legislation are good jobs. Specifically, our recommendations fall into to four main areas:

First, incorporate job certifications in the legislation. The bill lacks specific definitions as to who is qualified to perform auditing, retro-commissioning and retrofitting functions. Without proper worker certifications, there is no assurance that skilled professionals who have been trained to perform the best work possible will be hired. A group of labor unions that wants to see this legislation succeed have been working on a consensus list of licensing and certification requirements that should be included in the legislation. Even the federal energy bill, which includes a building retrofit provision, makes specific reference to Building Performance Institute (BPI) certification as an option for building auditors and retrofit workers. I encourage the Council to avoid vague or undefined terms in the legislation, and instead include specific job

titles with accompanying certifications as a requirement for doing the work as outlined in the legislation.

Second, include apprenticeship and labor-management training programs. Training is critical to prepare workers for green collar jobs and to ensure the work is done right for maximum savings and long-term efficiency. Auditing, retro-commissioning, and retrofits should be managed and performed by individuals who have been appropriately trained, either through a state certified apprenticeship program or by a qualified training provider that meets state recognized building performance standards. These training programs already exist in New York, such as 32BJ's Thomas Shortman Training Fund, which has launched an innovative and ambitious green building initiative, called "1,000 Green Supers", where 1,000 residential building superintendents will be trained to become energy efficient building operators. Training allows workers to link up with good employers, as well as climb career ladders within their fields. Furthermore, existing residential and commercial building staff should be trained by qualified providers, as building operations and maintenance will be critical to the short and long-term success of energy efficient buildings once they are retrofitted.

Third, ensure that green jobs are high quality jobs. Most agree that green jobs must be good jobs and that the growth in the green collar workforce should provide pathways out of poverty for workers who are unemployed or underemployed. President Obama has already made this commitment, as evidenced by the fact that stimulus dollars that are now flowing to green jobs across the county are tied to the prevailing Davis-Bacon rate. The City should do whatever it can to ensure that the jobs that are created as a result of this legislation are good jobs. Toward that end, the legislation should provide that if buildings choose to outsource this work, they use only responsible contractors.

Fourth, require compliance and oversight. The legislation does not include nearly enough oversight and enforcement by the Department of Buildings. There are no explicit measures to ensure that buildings are in compliance with auditing and retrofitting mandates, which could make the mandate essentially meaningless.

Before I conclude, I would like to turn to Jason Panarella, who is a resident manager for Cooper Square Realty and has attended 32BJ's Green Building training course in our union's Shortman Training Program. Jason would like to briefly share some of his thoughts on what he has learned about building energy efficiency:

> Good morning. My name is Jason Panarella. I am a 32BJ member and Resident Manager at Washington Square Village in Manhattan. I am here because I know the difference energy efficiency training can make.
>
> Over the course of my 15 years in the building service industry, I have logged thousands of hours on the job. I have learned that installing expensive equipment upgrades and automated systems might make

building more efficient – but what really makes a building efficient are the people running it. It doesn't matter how much money a building invests in an automated system if the staff is not trained to operate it. As a superintendent I am the eyes and ears of the building. I know the nuances of my building and am the first person to know if something is wrong.

My job is not only about keeping a building clean and safe - it is about managing energy. If buildings want to become more energy efficient, workers need to learn new concepts, maintain complex equipment and understand green technologies.

Through 32BJ's Green Building class I learned how reviewing maintenance logs can alert me to potential waste, how variable frequency drives and motion sensors can reduce energy costs, and how simple cost-effective measures like replacing steam traps and vents can save thousands of dollars on heating bills.

As a 32BJ member I am glad the city council recognizes how important it is that buildings become more sustainable and stop wasting energy. I hope the city plan includes training workers. We all know that buildings use a lot of energy. Building service workers are in a position to make sure they use less. Thank you.

In conclusion, we are on the verge of a green building revolution, and building service workers are the ground troops that will make New York a model for the rest of the country. In fact, the promise of auditing, retro-commissioning and retrofitting buildings will never be realized, and cost and energy savings will never be achieved, if residential building operations and maintenance is not at the center of building efficiency. Green jobs should not come at the expense of existing workers who maintain our buildings, nor should they bring the promise of employment without wages and benefits that will grow and keep a strong middle class. The good news is we can have both green jobs that are good jobs. The Council can achieve its goals by improving this legislation with amendments that include more comprehensive provisions to create a workforce that is trained, certified and guaranteed a livable wage. We appreciate the Council's leadership on this issue, and we look forward to more opportunities to work with you to make New York City the leader in green building energy efficiency and maintenance.

Local 32BJ Thomas Shortman Training Fund

1 YEAR: 1,000 GREEN SUPERS

Our Plan For A Greener New York City

1 YEAR: 1,000 GREE

Buildings in the United States consume more energy than any other sector of the economy, including transportation or industry. Inefficient buildings are wasting our money and polluting our atmosphere. In the midst of this economic downturn we are paying a price we simply cannot afford. By greening our city's buildings we can **SAVE MONEY AND CLEAN OUR ENVIRONMENT.**

The investment required to "green" our buildings is small compared to the payoff. There are a variety of low cost and no cost strategies to make our buildings run more efficiently. It is just a matter of providing our building professionals with the proper green training.

The Thomas Shortman Training Fund is a joint labor-management partnership which provides training to SEIU Local 32BJ members. We have been helping green our city's buildings for the last four years by providing intensive training courses for building service professionals.

We are now poised to dramatically expand the scope and impact of our training program by focusing on the individual most responsible for the day-to-day operations and maintenance of our buildings—the superintendent. We will train 1,000 green superintendents in one year to help foster a greener New York City

Your Pocketbook

The financial benefits of green buildings are enormous. Every bit of energy and water we save puts money directly into our pockets. Replacing a single old fashion fluorescent lighting fixture with a similar high-efficiency fixture can save upwards of $130 per year.[1] Fixing a leaky toilet could save as much as $730 per year.[2] Very simple actions can provide very sizable returns.

When a trained green super installs efficient light bulbs, fixes leaky toilets, installs motion sensors, or simply weather-strips doors we all save money.

Your Health

The cost of inefficient buildings is not limited to our pocketbook. The impact starts at home. Americans spend almost 90% of their time

Bill Aristovulos is the superintendent of The Saint Germain and is a 32BJ member. He has been working in the building service industry for almost 30 years, 18 as a super.

Bill has greened his building in a variety of ways. He has installed highly efficient lighting systems in the communal areas of his building and motion sensors on the lights in the garage.

Mr. Aristovulos also installed a new highly efficient air conditioning chiller in his building. Installing this system saves his building $20,000 in energy costs per year and prevents 300 extremely dangerous pounds of refrigerant from entering our atmosphere annually.

Water conservation is another goal Bill has pursued. He installed low-flow toilets in every apartment in his building. This action reduced the building's water consumption by 30%.

SUPERS

inside and EPA studies have shown that indoor air quality is sometimes two to five times worse than the outside air.

A trained green super can improve the indoor air quality of our buildings. A green super can use non-toxic cleaning products and ensure that building ventilation is working at maximum efficiency. Good indoor air quality reduces sickness and helps tenants avoid the symptoms of a variety of chronic health conditions, including asthma and allergies.

Your Environment

The cost of dirty buildings to our environment is tremendous. Every kilowatt of electricity or gallon of fossil fuel that a superintendent saves reduces our city's impact on our planet.

Green superintendents are helping to create the sustainable New York City that we all deserve. They are an indispensable element of our nation's effort to clean our atmosphere, purify our water, and avert the global climate crisis.

Your Community

Our country is undergoing a green revolution. Tens of thousands of jobs are being created to help make our buildings more efficient. When we create green pathways out of poverty, we make our communities more vibrant, our city safer, and our nation stronger. When we support green supers we save money, clean our environment, and help our neighborhoods prosper.

The Cost of New York City's Inefficient Buildings

66%

Percent of energy consumed in the city that is used by buildings.[3]

77%

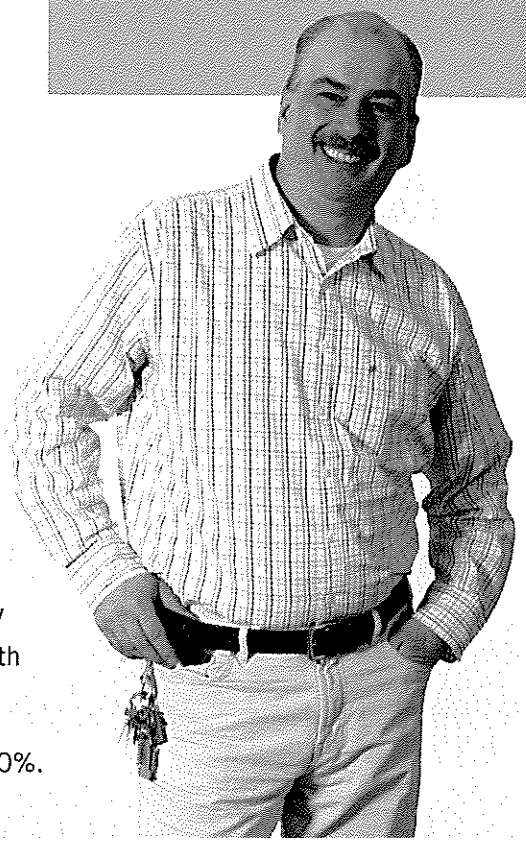
Percent of all greenhouse gases emitted by New York City come from buildings.[3]

$13.4 billion

Dollars we spend annually on electricity, natural gas, and heating oil.[4]

1.5 million

Number of housing units contained in nearly 15,000 large multi-family residential buildings in the city.[5]



John Sarich is a Resident Manager and long time 32BJ member.

John has used a variety of strategies to green his building. Lights are one of the areas where John has made the biggest difference in his building. He installed dusk to dawn sensors in the common spaces of his building which receive natural light. This technology automatically turns lights off during the day if enough daylight is present. Additionally, for interior areas without natural light, John installed motion sensors and timers to shutoff lights automatically when the spaces were not in use.

Elevators were another area where John saves a lot of energy. He setup a schedule that turned off one of his elevators in the dead of the night when they were not being used. This action saved his building large amounts of energy with essentially zero cost.

Mr. Sarich's green efforts have reduced his building's annual energy costs by 20%.

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The Thomas Shortman Training Fund provides training to 70,000 New Yorkers working in the property services industry. Our mission is to improve the lives of low-wage service workers and all New Yorkers who are trying to make our city a clean place to live, work, and raise a family.

Every year Shortman programs provide industry, academic, and computer courses to thousands of Local 32BJ building service workers at over 20 locations in New York, New Jersey, Connecticut, Pennsylvania, Maryland, and The District of Columbia.

[1] *Calculation based on replacing a 192 Watt F40-T12 (4 lamps, 2 ballasts) fixture with a 112 Watt F32-T8 (4 lamps, 1 ballast) fixture that is on 24 hours per day and costs $0.19/kWh.*
[2] *New York City Department of Environmental Preservation, "Leaks and Their Costs", 2009.*
[3] *The City of New York, "PlaNYC: Inventory of New York City Greenhouse Gas Emissions", 2008*
[4] *The City of New York, "PlaNYC: A Greener, Greater New York", 2007*
[5] *New York City Department of City Planning, "MapPLUTO 20006"*

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FOR THE RECORD

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Written Testimony on Intro 967
June 26, 2009

The Center for Working Families thanks the Council's Committee on Environmental Protection for this opportunity to testify on Intro 967.

The Center is a non-profit think- and do-tank that develops policy to shift economic and other outcomes for poor and working New Yorkers, including energy and environmental policy.

Our Green Jobs/Green New York policy, pending state senate approval, will retrofit 1 million New York State homes in 5 years. It will reduce greenhouse gas emissions, lower the cost of housing by saving families money on energy while improving their homes, and create over 14,000 permanent well-paying jobs.

We share the Council's goal of reducing emissions, greening the city's building stock and making apartments safer and healthier.

In order to realize the real benefits of these measures to the city's economy and sustainability, the cost savings of energy efficiency must be distributed fairly.

For that reason, we are extremely concerned that the retrofits proposed in Intro 967 could result in unfair MCI rent increases and/or discretionary rent increases for regulated tenants as well as rent increases for Mitchell Lama tenants. Low and moderate income renters, who are disproportionately people of color, have suffered a disproportionate burden of the city's environmental degradation and pollution. To leave open the possibility that they might pay the "cost" of retrofits that result in energy savings for their landlords is therefore uniquely unjust.

We are also concerned about the lack of job standards and titles in the legislation. We echo Urban Agenda's call for inclusion of provisions that ensure that the jobs created by these bills are good and safe jobs, and that funding sources be created to ensure that all buildings can be reached by high quality retrofits.

Finally, we emphasize that true green policy must distribute benefits fairly. Energy efficiency saves money – the question is for whom.

Today we join Legal Aid, Tenants & Neighbors, Urban Agenda and other advocates in withholding our support for Intro 967.

We look forward to working with the Council on crafting just green policy that benefits poor and working New Yorkers.

Thank you for your time.

BUILDING & CONSTRUCTION TRADES COUNCIL OF GREATER NEW YORK

AFFILIATED WITH THE
BUILDING CONSTRUCTION TRADES DEPARTMENT
OF WASHINGTON D.C.

BUILDING AND CONSTRUCTION TRADES COUNCIL
OF NEW YORK STATE

AMERICAN FEDERATION OF LABOR OF CONGRESS
OF INDUSTRIAL ORGANIZATION

GARY LaBARBERA
PRESIDENT

TESTIMONY OF
PAUL E. FERNANDES
CHIEF OF STAFF
BUILDING AND CONSTRUCTION TRADES COUNCIL OF GREATER NEW YORK

HEARING ON INTS. 476A, 564A, 967 AND 973

COMMITTEE ON ENVIRONMENTAL PROTECTION
COUNCIL OF THE CITY OF NEW YORK

JUNE 26, 2009

Good morning, Mr. Chairman and Members of the Committee. My name is Paul E. Fernandes. I am the chief of staff of the Building and Construction Trades Council of Greater New York, an organization that consists of local affiliates of 15 national and international unions representing 100,000 working men and women in the five boroughs of New York City.

We are pleased to testify today on Ints. 476A, 564A, 967 and 973. These proposals to improve the energy and water efficiency of buildings presents our city with an opportunity to stimulate economic activity as we make investments to reduce consumption and harmful emissions and conserve natural and financial resources.

It is important that we assure that the work undertaken pursuant to this legislation is performed

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with a commitment to the training and skills required to achieve the desired results. If done incompetently, this work will waste money and discourage further efforts to "green" our building stock. It may also endanger employees involved in the work, occupants of affected buildings and other members of the public.

As currently drafted, Ints. 476A, 564A, 967 and 973 do not sufficiently address these concerns. We do, however, look forward in the coming weeks and months to seeing this legislation amended so that it is improved in a manner which deserves the support of the Council.

First and foremost, we must assure that the employees of the owners and managers of affected buildings and the contractors utilized by the owners and managers of these buildings to perform retro-commissioning and retrofit measures and upgrades of lighting systems meet certain standards to demonstrate their commitment to the training and skills required to competently and safely perform work undertaken pursuant to this legislation.

One measure we propose to address this concern is that any and all of the contractors utilized by the owners and managers of these buildings to perform this work be required to participate in an apprentice training program in each apprenticeable trade they employ that is approved by the New York State Department of Labor and has been sponsored in successful operation for not less than three years.

It is important to understand that this work does not involve new classifications of workers. It will require operating engineers, plumbers, steamfitters, electricians, heat and frost insulators and

other trades that will continue to perform the work of maintaining, renovating, improving and building structures throughout the city.

It is certainly the case that to perform this work, these trades will need to maintain a commitment to continuing education and attaining skills in new technologies. It is also the case, however, that to properly perform this work, these new skills must be added to a foundation of many other skills that only come with prior training and experience.

We are aware of claims that "green" building work will create a demand for hundreds and even thousands of new workers in new occupations. These claims are not being made by knowledgeable members of the training and employment community. Training workers only to perform "green" building work will in fact consign them to very limited and very unrewarding employment opportunities. It would therefore represent extremely poor public policy to adopt this line of thinking.

It is important to understand that, particularly in the current labor market, "green" building efforts will create economic activity, but they will not create a demand for a substantial number of new employees. This new economic activity will in fact primarily provide employment opportunities for existing members of the building maintenance and construction industries, the latter of which has lost nearly 10,000 jobs during the past twelve months and may lose as many as another 20,000-30,000 more jobs in the next twelve months. It would be misleading to suggest that the legislation under consideration today will require hundreds or even thousands of new individuals to enter the industry.

Mr. Chairman and Members of the Committee, we believe Ints. 476A, 564A, 967 and 973 represent a great opportunity to "green" our building stock and stimulate economic activity at a time when it is desperately needed. We urge you, however, to proceed deliberately and engage the private sector that will ultimately be responsible for performing this work so that it is done right and in the most efficient and safest manner possible.

Thank you.

AIA New York Chapter
The Founding Chapter of The American Institute of Architects

Statement on the New York City Council Energy Conservation legislation related to the Greener, Greater Buildings Plan

New York City Council Environmental Protection Committee Meeting, June 26, 2009

We are here to testify on behalf of the New York Chapter of the American Institute of Architects, a professional organization with almost 4,300 architect and public members. The AIA New York Chapter applauds its friends here at the City Council Environmental Protection Committee, the Mayor's Office for Long Term Planning and Sustainability, and the proposed bills that we are discussing today,

- Int. No.967, Article 308: AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS
- Int. No. 476-A, Article 309: BENCHMARKING ENERGY AND WATER USE
- Int. No. 973, Article 310: REQUIRED UPGRADE OF LIGHTING SYSTEMS
- Proposed Int. No. 564-A, Article 1001: ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE.

These bills are central to the continuing efforts of *PlaNYC,* which is bringing New York City to the forefront of sustainable city planning in the United States and internationally.

Why do we feel that these bills are so crucial? As architects, we understand that buildings contribute significantly to carbon emissions and climate change, and that we have a fundamental responsibility to improve building energy efficiency in order to reduce the negative impact on the environment. AIA New York endorses retrofitting and upgrading the City's almost one million existing buildings to fit these new standards. We know we can make our city more energy efficient and less detrimental to our environment.

This is especially critical for New York. As *PlaNYC* points out, "almost 80% the City's carbon footprint comes from buildings' energy use." Environmental degradation is a threat to the health, safety, and welfare of our citizens.

Previously, the New York State Energy Code applied to only a portion of existing buildings that met a threshold substantial renovation requirement. The creation of a New York City Energy Code would require that any building over 50,000 square feet undergoing renovation follow these new green energy standards. The City Council and Administration should be commended for taking on environmental degradation as a building code issue.

Given the economic downturn, these proposed bills present an unprecedented opportunity to recycle and retrofit the vast stock of older buildings in New York. With the necessary

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regulatory oversight and enforcement, our buildings can become more efficient, cleaner and greener structures. Further, this proposed legislation will set a leading example, nationally and globally, of best practices in sustainability and urban planning for other cities to follow.

The following is a list of clarifications and recommendations that we hope will strengthen the proposed legislation:

Int. No.967, Article 308: AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

- Qualifications for Energy Auditors: Should require a licensed Architect or Professional Engineer with ASHRAE Level 2 Energy Auditing training.
- Qualifications for Cost Estimators: These need to be determined. The qualifications should refer to an industry standard for cost estimating such as RS Means.
- Payback Calculations: A rolling average of a building's prior three years' energy costs should be the basis for payback calculations.

Additionally, the AIA New York Chapter feels strongly that in order for the proposed Energy Conservation legislation to be successful, a process of training and certification must be established for the energy auditors. We commend the six-point green buildings plan for including a job program to train the workforce for real estate and construction industries. In addition, AIA New York recommends that training be made available to Architects, Engineers, NYC Department of Building Examiners and Building Managers on the requirements of this proposed legislation and the standards for its implementation. The AIA New York Chapter has a long history of providing education and training programs, and of successful collaborations with DOB and other City agencies. We would welcome the opportunity to develop educational programs in order to ensure that this legislation is implemented effectively.

The AIA New York Chapter strongly supports these bills as important steps in the process to significantly reduce carbon emissions. We believe that as a set of laws, they strike a sensible balance that considers how each of the various stakeholders will be affected. Thank you for the opportunity to testify. We look forward to working with the City Council and Administration to ensure these that these bills are enacted and offer our expertise to you when thinking through any further details.

Sincerely yours,

Sherida Paulsen
President

Rick Bell
Executive Director

June 26, 2009

NYC Council, Committee on Environmental Protection
Prop. Int. Nos. 476-A, 564-A, 967 and 973
Statement of Donna De Costanzo, Senior Attorney

Good morning Chairman Gennaro and Members of the Committee. My name is Donna De Costanzo, and I am a Senior Attorney at the Natural Resources Defense Council (NRDC), a national nonprofit environmental organization based in New York City. Thank you for the opportunity to testify in strong support of the legislation before the Committee today. The NRDC applauds the City Council for moving forward on these bills, in partnership with the Mayor, which are not only a critical part of the solution to address climate change, but will also result in significant job creation, lower energy costs for consumers, fewer emissions of harmful pollutants, increased reliability of our electric grid and greater energy security.

The science is in and the debate about whether climate change is happening is over – we need to focus on how to address the problem, at all levels of government. This Committee and the Council recognized that fact when it adopted Local Law 55 of 2007, which institutionalized in law the strong, but achievable greenhouse gas reduction targets of PlaNYC – including reducing citywide emissions 30% by 2030. The landmark legislation before you today will go a long way towards meeting that requirement by addressing existing buildings – the largest contributor to the City's carbon footprint. A number of jurisdictions have focused on new buildings, which are also important, but dealing with buildings that are already standing and will be around for decades to come is key – particularly in New York City where emissions from energy consumption in buildings comprise nearly 80% of the City's global warming pollution.

Energy efficiency is an important resource and is the cheapest, easiest and fastest way to meet New York City's energy needs while reducing global warming pollution. According to a 2007 analysis by McKinsey & Company, which looked at the cost and potential of different approaches to reduce greenhouse gas emissions in the United States, there is enormous potential for energy efficiency in buildings.[1] In addition, the economic benefits of investing in energy efficiency roughly cover the cost of reducing such emissions on the scale and timeframe needed to avert potentially catastrophic warming. Buildings are our largest source of efficiency that is just waiting to be tapped.

This package of bills will require that sensible, cost-effective energy efficiency measures are implemented and will create demand at scale that is necessary to send a signal to the marketplace. New York City is poised to become a center for green jobs, innovation and financing. As demand for energy efficiency measures grows, here and throughout the country, New York City can position itself as a leader in the industry – in providing energy services, financing products, and the work needed to install the upgrades, themselves.

In addition, central systems and lighting represent the most significant portion (about 75%) of our energy use in buildings, so targeting them represents a large opportunity. Much of the energy used in our buildings is wasted – it's like we have a hole in our pocket, and our money just keeps falling out. Energy efficiency measures such as retrofitting existing buildings can generate net savings using technology that exists today and provide a low-risk investment, on which the potential return is substantial. Int. No. 967, as now being considered, would only require measures to be implemented that have a payback period of 5 years. However, many energy efficiency measures pay for themselves within 2 – 3 years and continue to provide energy cost savings for many years thereafter.

This package of legislation will not only result in a multitude of benefits in New York City, but can also serve as a model for other cities around the country and the world. I thank you for leadership on this issue and urge this Committee and the Council to expeditiously move forward to adopt these bills as soon as possible.

1 McKinsey and Company (2007). "Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?", sponsored by DTE Energy, Environmental Defense, Honeywell, National Grid, NRDC, PG&E, and Shell and available for download at http://www.mckinsey.com/clientservice/ccsi/greenhousegas.asp.

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- Proposed Int. No. 564-A, Article 1001: ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE.

These bills are central to the continuing efforts of *PlaNYC,* which is bringing New York City to the forefront of sustainable city planning in the United States and internationally.

Why do we feel that these bills are so crucial? As architects, we understand that buildings contribute significantly to carbon emissions and climate change, and that we have a fundamental responsibility to improve building energy efficiency in order to reduce the negative impact on the environment. AIA New York endorses retrofitting and upgrading the City's almost one million existing buildings to fit these new standards. We know we can make our city more energy efficient and less detrimental to our environment.

This is especially critical for New York. As *PlaNYC* points out, "almost 80% the City's carbon footprint comes from buildings' energy use." Environmental degradation is a threat to the health, safety, and welfare of our citizens.

Previously, the New York State Energy Code applied to only a portion of existing buildings that met a threshold substantial renovation requirement. The creation of a New York City Energy Code would require that any building over 50,000 square feet undergoing renovation follow these new green energy standards. The City Council and Administration should be commended for taking on environmental degradation as a building code issue.

Given the economic downturn, these proposed bills present an unprecedented opportunity to recycle and retrofit the vast stock of older buildings in New York. With the necessary

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regulatory oversight and enforcement, our buildings can become more efficient, cleaner and greener structures. Further, this proposed legislation will set a leading example, nationally and globally, of best practices in sustainability and urban planning for other cities to follow.

The following is a list of clarifications and recommendations that we hope will strengthen the proposed legislation:

Int. No.967, Article 308: AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

- Qualifications for Energy Auditors: Should require a licensed Architect or Professional Engineer with ASHRAE Level 2 Energy Auditing training.
- Qualifications for Cost Estimators: These need to be determined. The qualifications should refer to an industry standard for cost estimating such as RS Means.
- Payback Calculations: A rolling average of a building's prior three years' energy costs should be the basis for payback calculations.

Additionally, the AIA New York Chapter feels strongly that in order for the proposed Energy Conservation legislation to be successful, a process of training and certification must be established for the energy auditors. We commend the six-point green buildings plan for including a job program to train the workforce for real estate and construction industries. In addition, AIA New York recommends that training be made available to Architects, Engineers, NYC Department of Building Examiners and Building Managers on the requirements of this proposed legislation and the standards for its implementation. The AIA New York Chapter has a long history of providing education and training programs, and of successful collaborations with DOB and other City agencies. We would welcome the opportunity to develop educational programs in order to ensure that this legislation is implemented effectively.

The AIA New York Chapter strongly supports these bills as important steps in the process to significantly reduce carbon emissions. We believe that as a set of laws, they strike a sensible balance that considers how each of the various stakeholders will be affected. Thank you for the opportunity to testify. We look forward to working with the City Council and Administration to ensure these that these bills are enacted and offer our expertise to you when thinking through any further details.

Sincerely yours,

Sherida Paulsen
President

Rick Bell
Executive Director

Testimony of Josh Nachowitz
State Policy Director
New York League of Conservation Voters

Environmental Protection Committee
Intro. No. 564-A
Intro. No. 967
Intro. No. 973
Intro. No. 476-A

June 26, 2009

Good morning Chairman Gennaro and members of the Committee. My name is Josh Nachowitz and I'm the Policy Director for the New York League of Conservation Voters (NYLCV). I'm honored to testify here today in support of this groundbreaking package of green buildings legislation. The four proposed bills before the committee today would make New York City one of the greenest cities in the world.

Creating more efficient commercial and residential buildings is an environmental and economic imperative for New York City. The threats of climate change are real and growing. As a coastal city, New York and its aging infrastructure is particularly vulnerable to rising sea levels and more frequent and severe storms. Our economic well being is also endangered by our voracious appetite for energy. All indications point to continued volatility in the cost of fossil fuels. Inadequate energy production and delivery infrastructure combined with price volatility and ever increasing demand will result in more outages and higher consumer and business expenses.

Roughly 79% of New York City's greenhouse gas emissions come from existing buildings. "Greening" these structures will make a tremendous impact on our greenhouse gas emissions and create a more efficient and business friendly city in the future. The proposed legislation would create a first of its kind set of mandates and disclosure requirements that would gradually turn New York into one of the most energy efficient cities in the United States.

This package of legislation is a simple and cost effective way to dramatically improve energy efficiency. The combination of disclosure and mandates in these bills will provide consumers with much needed information about the energy profile of properties they are considering leasing or purchasing and will result in long term savings. It is important to remember that while some measures in these bills will require upfront costs, they will all result in long term savings for both landlords and tenants. It is clear that the cost of energy will only increase in the future. The more aggressively we act now to improve the efficiency of our homes and office buildings, the more we will be able to save in the future.

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The legislation under consideration today would also spur the development of a robust "green economy" in New York City. This legislation would create thousands of new, well paying "green collar" jobs. We have the opportunity to begin preparing a new generation of workers for a truly 21st century economy. New York City can take a leadership role in supporting and developing the green economy.

The time is now to pass this ground-breaking package of legislation, which will dramatically improve New York's energy efficiency and reduce energy costs by roughly three-quarters of a billion dollars a year. We owe a debt of gratitude to the City Council and Mayor Bloomberg for crafting this first-of-its kind initiative, and we look forward to its passage and implementation.

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Written Testimony
J. Mijin Cha, Director of Campaign Research, Urban Agenda
Before the Environmental Protection Committee
Hearing on "Greener, Greater Building Legislative Package"
New York, NY
June 26, 2009

Dear Councilmember Gennaro and Members of the Committee:

Thank you for giving me the opportunity to speak to you today on the "Greener, Greater Buildings" legislative package. My name is Mijin Cha and I am the Director of Campaign Research at Urban Agenda. Urban Agenda works closely with the New York City labor movement and other social justice movements to push for progressive policy change in our city.

Urban Agenda is also the convener of the New York City Apollo Alliance, the local affiliate of the national Apollo Alliance. The Apollo Alliance is a coalition of labor, environmental, social justice, and business organizations working together to promote policies that bring us closer to energy independence, create green collar jobs, and make our environment more sustainable.

Before you today is an ambitious, far-sighted set of legislation. New Yorkers spend a total of $15 billion to fuel our buildings, and buildings produce 80 percent of our carbon dioxide emissions, a primary contributor to global warming. The Greener, Greater Buildings legislative package aims to tackle this problem and make commercial buildings over 50,000 square feet more energy efficient. Urban Agenda commends the City Council for taking this huge step and recognizes the significance of this legislation.

However, while we support the intention behind the legislation, as written, the legislative package is incomplete. We echo the concerns raised by our housing advocate allies and urge that language is included to protect affordable housing tenants. We are also concerned about the severe lack of enforcement, as the bills will be effective only if they are properly enforced.

The lack of job standards in the legislation is particularly troubling. There is no doubt that, when properly enforced, this legislation has the potential to create work for thousands of workers. Yet, without adequate job standards or clear job titles, there is no guarantee that the work will be done properly or that it will be done safely. As written, there are no definitions or required qualifications for Energy Professional, Lead Energy Professional or Registered Design Professional. It is also unclear who would be qualified to do the benchmarking, energy auditing, retrofitting, or retro-commissioning.

Requiring completion of training programs or certifications in the legislation would help ensure that the work was done properly and safely. Appropriate training programs include:

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- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) Level II or Level III Energy Audits in urban, high rise, commercial, or residential facilities

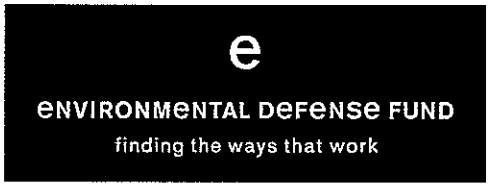
Appropriate certifications include:

- Professional Engineer
- Certified Energy Auditor
- Certified Energy Specialist
- NYC Stationary Engineers License
- NYC Refrigeration System Operating License
- Building Operator Certification
- Certified Building Commissioning Professional
- Certified Energy Manager

These trainings and certifications are widely used in the industry and proven to provide the skills, knowledge, and experience necessary to ensure the work done to make buildings more efficient is done properly and safely. These trainings and certifications must be explicitly included in the legislation. It cannot be assumed that the right training and certification would be automatically applied.

We also need to ensure that the jobs that are created are good, green collar jobs that provide a family-sustaining wage, paid benefits, and pathways out of poverty. While these elements cannot be mandated, requiring proper training and certifications goes a long way towards providing adequate job standards so the jobs that are created are not just green jobs, but good jobs.

Thank you for your time and consideration. We appreciate the dedication to green initiatives that the Council has shown. We look forward to amended legislation that addresses the current shortcomings, makes our building more energy efficient and brings our City to the forefront of the fight against climate change.



Testimony of the
Environmental Defense Fund
Before the City Council Committee on Environmental Protection
Hearing on Green Building Legislation
June 26, 2009

Good afternoon. My name is Elizabeth Stein. I am an attorney with Environmental Defense Fund, a non-profit group headquartered in New York City. Before coming to EDF, I had five years' experience as a real estate attorney in the private sector, working on commercial and residential development projects, of which many were prominent initiatives in New York City.

My bottom line for you today is simple: These bills are **good for the bottom line**. They constitute the largest and most cost-effective action New York City can take to reduce energy demand, greenhouse gas impacts and consumer electric bills.

EDF supports the bills before you today, recognizing that they will need to be modified to strengthen environmental performance, ensure public input and respond to some practical implementation needs. But the basic framework before you today deserves your strong support and your commitment to work through whatever outstanding issues may arise.

Prompt passage of the full package of bills is vital, for several reasons:

- First, even the most significant of the four bills before you requires *only* modifications that can pay for themselves. As a result, over the medium term, these bills should have a **negative net cost** to those affected by them. A "**negative net cost**", because wasting less energy saves money.

- Second, prompt action on these bills will put **our city's workforce** ahead of the curve, preparing us to tap into the national market for green building technology as it expands.

- Third, the retrofit bill is far more flexible than a blunt mandate, giving building owners the **flexibility** to substitute alternative measures to achieve the same energy efficiency results.

- Fourth, timelines and exemptions reflect **today's economic needs**. The bills contemplate flexible timing for building owners whose ability to comply is constrained in light of the current financial crisis, or for other reasons. EDF supports this flexibility, so long as financial hardship exceptions are not permitted to swallow the rule.

Most importantly, in considering the package as a whole, we ask you to consider two fundamental realities:

- First, passing the bills *now* helps **clear away market barriers** that currently prevent sensible energy efficiency modifications from being made. Concerns about market readiness can be addressed by enacting legislation now, and building into the legislation the **breathing room that real estate owners and lenders will need** to adjust their practices during the early years of the new requirements, so that they can maximize their ability to capture the benefits of the resulting energy efficiencies; and

- Finally, please **think of what happens if we don't act.** We will miss the biggest local opportunity to solve global warming. We will miss a key chance to reduce the strain on the grid during peak demand periods, and the resulting **brownouts.** And the city will have to address growing energy demand with **more power plants within the five boroughs**, emitting pollutants that, according to recent studies, can lead to such negative health effects as **reduced IQ** for children, and **heart attacks.**

We understand that details relevant to implementation of these bills are still being negotiated. Our written testimony addresses some of the key issues in greater detail. However, we think it would be best to conclude these negotiations quickly, so that this extraordinary moment does not pass us by and these game-changing bills can move forward.

The Biggest Opportunity: Why it's Important to Act Now.

This is the moment for New York City to take a national leadership role in green building technologies, workforce development and policy. Here in New York, there are many pressing reasons to act:

- **Climate change**: The science is overwhelming and clear: globally, mankind must reduce greenhouse gas emissions eighty percent by 2050 or face catastrophic consequences. That means finding ways to grow the economy with less energy and carbon impact. The effects of climate change will be felt especially hard in large coastal cities like New York, where infrastructure and communities are vulnerable to flooding, storm surge, higher summer temperatures and other effects of climate change.

- **Health and Air**: Pollution from power plants is worst at times of peak demand, when the dirtiest power plants must be turned on. In hot weather (when smog forms more easily), and in communities where these dirtier power plants are located, impacts can be especially severe. In a global warming context, such heat waves can be expected to be more frequent and more intense. Increasing energy efficiency reduces peak demand.

- **Water and Biodiversity.** Pollution from power plants, especially coal, threatens the state's water supply with acid rain and mercury poisoning.

- **Lower bills, fewer brownouts:** High energy costs and brownouts threaten our economic competitiveness. Today, about 80% of the city's electricity is generated within the city, and future power plants would have to be here too, because distribution chokepoints limit our ability to import electricity. Expanding imports would also threaten to increase reliance on dirty coal or nuclear. Efficiency reduces pressure to build new supply.

- **More Jobs and Workforce Development.** According to the city, the package of bills before you is projected to generate thousands of construction-related jobs. President Obama has made a national cap on greenhouse gas emissions a signature priority, and a bill is making its way through Congress now. That cap is likely to spur demand for clean energy and green building expertise nationwide. By acting now, New York can develop its workforce first, preparing to lead a national market.

Energy Efficiency is the Most Cost-Effective Climate Action.

Leading studies, including those by McKinsey and the World Business Council for Sustainable Development, agree that the *greatest potential* for a cost-effective near-term mitigation wedge for climate change comes from dramatically improved efficiency in how energy is used, especially in buildings. Energy used in US buildings accounts for 30-40% of the US carbon footprint, and US buildings account for about 9% of the *global* total – approximately equivalent to the combined carbon output of Japan, the United Kingdom and France. Buildings are the dominant users of electricity in the US, projected to consume about 77% of the US total in 2030, and they are the largest driver of summer peak electricity demand.

Efficiency is, in short, the biggest untapped climate mitigation "wedge". Much of this wedge can be won at *negative net cost* to the economy. According to the United Nations, cost-effective building energy efficiency, if taken to scale globally, could deliver emission reductions of up to 2 billion tons of carbon dioxide: close to *three times* the amount scheduled to be reduced under the Kyoto Protocol.

The opportunity is especially stark here in New York, where a disproportionately large fraction of our greenhouse gas footprint comes from the energy used in buildings. Almost 80% of the city's carbon footprint comes from the energy used in buildings for electricity, heat and hot water. Reducing energy wasted in buildings through measures that pay for themselves in a short time is without question the most cost-effective step New York can take to cut climate pollution. And we are in a unique position to lead the market for green building conversions and technologies, *if* we put the policies in place now to grow that market.

Together, New York City's 22,000 buildings of over 50,000 square feet comprise 2.5 billion square feet of space – or approximately 45% of the square footage of all New York City buildings. They are also responsible for the lion's share of the energy use attributable to New York City buildings – 58% of the energy usage attributable to buildings, and 45% of our city's *total* energy use. Efficiency improvements in that

relatively small number of buildings would have enormous ramifications for energy consumption in New York City as a whole.

The Bills work Together as a Package to Deliver Real Results

Each of the four bills makes an important contribution toward the city's emission reduction goals by addressing a different aspect of the energy waste that takes place in New York City's large existing buildings. EDF supports prompt action on all four bills before the Council today, with some suggested modifications described below.

The Audit/Retrofit Bill:

We are particularly optimistic with respect to the most environmentally effective of the four bills: Audits, Retro-Commissioning and Retrofits of Building Systems. This bill provides the regulatory framework to ensure that each covered building receives the individual, customized attention needed to do detailed, fact-specific analysis, in order to identify the improvements that would be most meaningful for that particular building.

By tying the obligation to make energy-related improvements to returns projected to accrue as a result of such improvements, the bill encourages energy efficiency improvements that make sense for owners as well as for the planet. In addition, by allowing owners to perform alternative retrofits that yield the same energy conservation outcome, the bill accords to building owners discretion to act based on different cost judgments than the auditors' own, provided equivalent energy efficiency improvements can be achieved by such alternative means. (It is worth noting that the audit, retrocommissioning and retrofitting requirements are only applicable to those buildings that are not already achieving exemplary energy efficiency performance; those buildings whose performance meets energy conservation code standards, or that receive an EPA Energy Star label, or are certified under the LEED standards for existing buildings, are wholly exempt.) The effect of this individualized attention to base building systems is anticipated to yield important results: according to the city, this bill is anticipated to generate citywide carbon dioxide emission reductions of 2.5% to 3% by 2030 – as much as or more than the lighting bill and the energy code bill combined.

The energy code bill:

- Eliminates a loophole in the state energy code – unique among states that have adopted the International Energy Conservation Code standards – that vitiates the state code's effectiveness in the context of large existing buildings;

- is minimally disruptive to building operations, and expected not to be very costly, because the requirements would only be relevant in the context of renovations already being made; and

- according to the city, is expected to reduce carbon dioxide emissions by 1% to 1.5% by 2030 (approximately one-quarter of the projected impact of the package as a whole).

The lighting bill:

- like the energy code bill, is expected to be minimally disruptive because most changes are anticipated to coincide with tenant turnover;
- relates to equipment often owned and installed by tenants;
- mandates changes that are anticipated to have very short payback periods (typically under three years); and
- according to the city, is expected to reduce carbon dioxide emissions by 1% to 1.5% by 2023 (approximately one-quarter of the projected impact of the package as a whole).

The benchmarking bill:

- generates data that will help building owners comprehend the relative extent of their energy efficiency problems (if any), at little or no cost to them; and
- rewards owners that implement energy efficiency measures voluntarily, by giving the marketplace the opportunity to see and price their results.

Although the benchmarking bill does not mandate efficiency measures, and therefore the greenhouse gas reduction resulting from it is difficult to predict, the aggregation and publication of energy efficiency information can reasonably be expected to change the marketplace itself, influencing real property owners to change practices voluntarily.

Recommendations.

- **Act Now.** We urge the City Council to act swiftly on the bills, so that the market can begin to adjust and prepare for implementation in a timeframe relevant to the global climate challenge. We also recognize that an effort of this magnitude, which places novel demands on so many parties, may face a challenging implementation process.
- **Continue to Involve Stakeholders in Implementation Process.** We are encouraged by the open process that led to the development of this package of legislation, a process that has so far included many stakeholders through the advisory board on sustainability and continues today with Council hearings like this one. Thank you. To ensure that that level of cooperation and communication continues, we recommend that the legislative package establish an ongoing stakeholder taskforce to be actively engaged at least

through the initial three-year period during which the initial energy audits, retrofitting and retrocommissioning are completed. That task force can continue to address, for example, ongoing questions relating to implementation, including green lease techniques, financing challenges, unexpected or disputed audit findings and green workforce development.

- **Keep to a Long Pay-back period.** Energy efficiency measures vary in their financial payback periods. Lighting retrofits, for example, generally pay for themselves in less than three years, while replacing windows may have a considerably longer payback. In order to encourage the broadest possible set of options, and to motivate the widest hunt for energy savings, we recommend that the bills maintain a strong commitment to at least a five-year payback, and preferably a 7-year payback, preferably calculated on a bundled basis.

- **Expand financing**. The bills as drafted provide an "out" for financially distressed buildings. EDF supports flexibility in this regard, so long as that flexibility is drafted in a way that does not allow the exception to swallow the rule.

  Over time, financing for these retrofits must simply become routine in the marketplace, just like paying for meeting other code requirements – including modifications to ensure that building facades do not threaten passersby with falling bricks and that buildings are accessible to handicapped persons. However, without bills like these, financing products to support green retrofits may simply never come into being. These bills will create new demand for financing that the private sector must respond to.

  In early phases, EDF supports a carefully crafted postponement for the small number of buildings in such financial distress that they simply cannot act in the scheduled timeframe. At the same time, EDF recognizes that federal stimulus funds, NYSERDA programs (including state funds arising from GHG auction revenue) and the private sector should be encouraged to expand financing opportunities for green retrofits. Over time, the city and state should explore innovative financing measures, such as tax credits and other measures linked to real estate taxes, as well as on-bill financing, and potentially insurance products or credit enhancement.

  With respect to the private sector, simply by enacting this legislation, New York City will help change the financing market in several respects. First, the obligation to perform specific retrofits should increase demand for "green underwriting"– an area of finance, still in its infancy, that is concerned with, among other things, incorporating anticipated returns resulting from efficiency improvements into underwriting practices.

  Second, after this legislation goes into effect, building owners will need to consider the prospect of future green modifications when financing or

refinancing their properties in the ordinary course. This is crucial in light of the fact that currently, some building owners may be unable to finance required improvements because the terms of their existing financing arrangements prevent them from obtaining such financing. While building owners should not be penalized for their existing arrangements, New York City can help prevent building owners and their lenders from continuing not to account for the need to make energy efficiency improvements by passing this legislation now, even as the economy continues to sputter. Making sensible energy efficiency improvements obligatory will encourage standard financing practices to evolve in a direction that does not preclude making such improvements, and, ideally, facilitates them.

- **New leasing structures.** Today's lease arrangements tend to give rise to so-called "split incentives": arrangements in which the party who makes the capital investments in energy efficiency may not be the same party who would benefit from the reduced energy savings. In many cases, for example, a building owner may bear all or most of the cost of the improvements, but the resulting savings often accrue to tenants. The opposite can be true too – a tenant has little incentive to save energy if, effectively, someone else is paying the bill. Thus, absent any law *requiring* that energy efficiency improvements be made, they are likely never to be made, because the party that has the power and ability to make the improvements lacks the incentive to do so.

  We urge the City Council to understand that fundamentally, the "split incentive" is a problem in leasing in and of itself – not a product of the legislation – and is a barrier to the free market generating energy efficiency improvements. The legislation merely casts the problem in a new light, by identifying and mandating specific building modifications that would, but for these leasing arrangements, pay for themselves over a defined period. By giving owners a powerful reason to modify their lease structures so that, to the extent feasible, the cost of improvements and the value of energy savings accrue to the same party, the proposed legislation will encourage an evolution in leasing practice.

  While this game-changing characteristic of the legislation is critical, it is also important that the legislation, or rules enacted in connection with the legislation, provide clear and adequate timelines for this transition to be accomplished. A stakeholder group could help resolve these kinds of issues, for example through model lease arrangements.

- **Workforce training**. The building blocks for success must be in place as soon as buildings begin the audit and retrofit process. To this end, we encourage the city to dedicate additional resources to job and workforce training, and to develop, as soon as possible, regulations that define clearly what professionals will qualify as "energy professionals" under the law. Again, a task force could be useful here. Beginning in calendar year 2011, an

initial cohort of approximately 2,200 buildings, comprising 250,000,000 square feet, is expected to become obligated to perform ASHRAE Level 2 audits. It is absolutely essential that the city ensure that at that time, enough energy professionals possess the requisite skills and are available to perform the audits, *and* that sufficient capacity exists to do the work required as a result of such audits in the timeframe required by the legislation. We encourage the city to continue its green workforce development efforts and to recognize how critical it is that the initial cohort encounter no shortfall in institutional and professional capability. While city government will have to work hard to lay the groundwork prior to the legislation becoming effective, New York City's workers and energy professionals will be real winners, when they find themselves ahead of the curve while the rest of the state and the nation struggle to catch up with New York City's superior energy efficiency knowledge and experience.

Testimony of
Russell Unger, Executive Director
Urban Green Council / U.S. Green Building Council, N.Y. Chapter
Before the New York City Council Committee on Environmental Protection

June 26, 2009

Good morning Chairperson Gennaro and members of the Committee. My name is Russell Unger and I am the Executive Director of Urban Green Council, the New York Chapter of the U.S. Green Building Council. I am pleased to express Urban Green's strong support for all the bills being considered today.

The mission of Urban Green is to advance sustainability in the urban built environment, and serve as a model for other cities, through education, advocacy, collaboration and research. Our national organization, USGBC, developed and manages the LEED green building rating system, which has been the driving force behind the green building movement. Our membership includes many of the city's top developers and builders, trades, product manufacturers and the country's foremost architects and engineers.

The Greener, Greater Buildings Plan delivers on a critical policy need: reducing the environmental impact of *existing* buildings. By municipal law, the city is required to reduce its greenhouse gas emissions by 30% by 2030. Buildings account for nearly 80% of New York City's greenhouse gas emissions. The math here tells the story: a reduction in emissions from

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buildings is the only way the city can make a meaningful reduction in greenhouse gas emissions, and comply with its own law.

Collectively, these bills effectively take the practices of the most responsible building owners and make them standard requirements for the industry. It makes sense to know how much energy your building uses compared to others; that way you know if you are wasting energy and money. It's good practice to upgrade old lighting that drives up your energy bills. It's good business to audit your building and implement cost-effective energy and water-saving measures. That's why many major owners support these measures.

The Greener, Greater Buildings Plan will be the environmental equivalent of the city's tobacco legislation. It will set an example that the rest of the country will watch, and eventually follow. It will also create something that is becoming dearer and dearer: jobs. It will create good, green jobs in New York City. And it will create job opportunities for New Yorkers outside the city because the rest of the country will eventually retrofit its buildings as well. By being the leader in this effort we will create and later export the expertise needed to make that happen. By mandating improvement we will also create economies of scale and drive down costs.

I congratulate the Council for its leadership and would be pleased to answer any questions.

FOR THE RECORD

Testimony to the New York City Council Committee on Environmental Protection On an Amendment to the Administrative Code of New York City To Require Energy Audits, Retro-Commissioning and Retrofits of Building Systems

June 26, 2009
City Hall, New York, NY

Good morning. My name is Nicole Branca and I represent the Supportive Housing Network of New York, a statewide member organization that represents more than 180 nonprofit agencies that build, operate and provide services in housing for homeless, disabled and at-risk New Yorkers. Our members offer permanent, affordable apartments with on-site social services to individuals and families living with mental illness, people living with HIV/AIDS, survivors of domestic violence, homeless veterans, youth aging out of foster care and other vulnerable populations. There are nearly 40,000 households living in supportive housing statewide, including 25,000 here in New York City.

I am here today to discuss Intro 967, a bill that would require energy audits, retro-commissioning and retrofits of building systems in New York City.

The supportive housing community embraces efforts to make New York City more energy efficient. Indeed, our members have been at the forefront of the movement to develop green buildings in New York City and across the state, with many winning awards for their innovative efforts. Almost all supportive housing buildings currently in construction contain green elements; many are LEED certified. In a recent survey of our members, 66% of the respondents reported utilizing environmental design elements such as water-conserving faucet fixtures, sensor-operated lights, Energy Star appliances to reduce electricity waste, and

non-toxic construction materials that reduce pollution in the surrounding environment.[1] In addition, many of our members are currently working with NYSERDA to retrofit their older buildings.

The Network supports the overall goals of Intro 967, as long as it does not have an adverse affect on the affordability of housing for low-income families and individuals, in particular, the formerly homeless people with disabilities and other barriers to independence housed and served in supportive housing. The Network represents over 80 nonprofit supportive housing providers in the City who are already struggling with rising operational costs and declining building income. Many of the City, State and Federal operating contracts that make it possible to house and serve vulnerable, extremely low-income tenants fail to keep up with inflation, and the financial stability of some of our residences is already at risk. We urge the City Council to only require nonprofits to meet the requirements of this bill if there is sufficient financing available to assist them.

There are three ways our members are affected by this bill.

- First and foremost, we estimate that 38 supportive housing residences in the City are larger than 50,000 square feet and are therefore covered under this bill.
- In addition, our members have nearly 10,000 supportive housing tenants living in individual scattered-site apartment buildings across the City. It is difficult to estimate how many of these reside in larger buildings covered by the legislation, but for those who do, we are concerned that the landlords could pass on the costs to the tenants – and therefore the nonprofits, since most are living on fixed incomes.
- Lastly, all of our members have office space and are tenants themselves. We are equally concerned that landlords could pass the costs onto them through their own leases.

We do no want an exemption for our members; on the contrary, supportive housing developers proudly embrace efforts to improve their housing for their tenants and their

[1] Community Benefits Report 2009 http://www.shnny.org/resources.html

community. Plus, they welcome the return on investment that retrofitting and retro-commissioning offers. However, to make this a viable option for them, and other non-profits across the City, we urge City Council to:

1. **Shorten the payback period to five years instead of seven.** This amendment is only a floor for what building owners can do. Most do or will realize the enormous savings certain energy efficiency improvements will have on their buildings. However, it makes sense to set a reasonable minimum and let the market take it from there. Plus, starting off with a smaller mandate would give the market time to develop its capacity to meet large-scale energy efficiency jobs; most of the banks are still figuring out lending models for auditing and retrofitting, and there are goals and funding for developing a green workforce. Nevertheless, as it stands today, few people in New York have received the training necessary to perform the audits and work that this legislation requires.

2. **Use the federal stimulus funding to develop a loan program specifically for non-profit building owners.** Financial intermediaries such as Enterprise Community Partners, the Corporation for Supportive Housing, National Equity Fund and others have the infrastructure in place to do this lending and have a proven success record working with the City with the NYC Acquisition Fund. The revolving loan program now being discussed as part of this legislation can leverage the much larger level of funding necessary from banks and other sources by using these Community Development Financial Intermediaries (CDFIs).

3. **Amend this bill to prevent landlords from being able to pass any of the costs onto their tenants.** It is our understanding that much of the work recommended by the energy audits does not fall under the NYS Division of Housing and Community Renewal's (DHCR) definition of Major Capital Improvements (MCIs) and therefore cannot be passed on to tenants. Nevertheless, we ask that this prohibition be explicitly included in the bill language and added to DHCR's weatherization rules.

4. **Ensure that nonprofit vendors, and residents of New York's low-income communities have access to the new jobs created by this initiative.** Presently, weatherization retrofitting efforts are usually provided through New York City's nonprofit community development organizations, using people who often do not have access to good-paying jobs to do the work. We urge that safeguards be put in place in the legislation to ensure that low-income New Yorkers benefit from the new economic activity generated by this legislation.

Thank you for holding this hearing and giving us the opportunity to testify.

Submitted by:
Nicole Branca
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Supportive Housing Network of New York
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FOR THE RECORD

TESTIMONY OF LAWRENCE A. MANDELKER on behalf of THE NEW YORK METROPOLITAN RETAIL ASSOCIATION (NYMRA) before the COMMITTEE ON ENVIRONMENTAL PROTECTION
Chair: Hon. James F. Gennaro
Friday, June 26, 2009, 10:00 a.m.
City Hall – City Council Chambers

NYC COUNCIL INT. NO. 967
REQUIRING ENERGY AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

NYC COUNCIL INT. NO. 973
UPGRADING LIGHTING SYSTEMS IN EXISTING BUILDINGS GREATER THAN 50,000 GROSS SQUARE FEET

Chairman Gennaro and Members of the Committee, thank you for the opportunity to testify. I am here on behalf of the New York Metropolitan Retail Association known as NYMRA. Our members are national chain retailers operating in the City of New York. Although most are commercial tenants, a number of our members are also owners. Macy's store at Herald Square comes to mind.

NYMRA applauds the Administration for recognizing that the manner in which buildings have been constructed and operated in the City is a larger source of carbon emissions than vehicular traffic. These bills are headed in the right direction. Nevertheless, we must oppose them in their present form as they would unduly burden national chain retailers in the City.

All of us are familiar with the concept of unfunded mandates. Congress passes a law requiring the states to do something without creating a revenue stream to pay for it. The Legislature does the same thing to the City. At a time when retail sales are in the tank, stores such as Circuit City and Filene's are going out of business and employees are being laid off, the City has been doing the same thing to retailers. By imposing additional fixed costs on national chain retailers, the City stresses their financial viability and exacerbates a downward spiral in sales and employment. Not surprisingly, tax revenues needed to meet the City's expanding needs are down and falling.

During the past two years, the City has shifted the cost of a number of environmental initiatives from itself to our members. For example, the City decided that consumer plastic bags should not enter its solid waste stream. However, it was too costly for the City to collect consumer plastic bags as part of its recycling program. Its solution was to have retailers serve as collection points to which consumers would bring their used plastic bags

Likewise, when the City decided that consumer e-waste should not enter the solid waste stream, rather than establish its own recycling collection centers or arrange for the Department of Sanitation to pick up and deliver consumer e-waste to them, it once again designated retailers to serve as collection agents. In both cases, the cost of recycling was shifted from the taxpayer who pays a progressive income tax, to the consumer who pays a retrogressive higher purchase price.

But that's not the only cost. Government has an insatiable appetite for data. Government has to measure how effective merchant recycling is, both as an enforcement mechanism and as a way of measuring whether programmatic goals are being met. Therefore, when calculating the cost to merchants, one must include the very real cost of developing and submitting recycling plans for approval, and collecting the data required by government to measure the amount being recycled.

And that brings us to this group of bills. They represent unfunded mandates on steroids. Other speakers have pointed out how difficult, impractical and costly it will be for landlords and tenants in general to do the work and make the governmental submissions called for in these bills. NYMRA shares their comments insofar as they pertain to our members' operations in the City.

Typically, retailers organize their wares on shelves or displays located on large open selling floors that can measure up to several hundred thousand square feet. Under Intro. 973, a $50,000 renovation project to a small area of a large open floor would require the retailer to upgrade the lighting system throughout the entire floor, even if electrical work would not otherwise have been required. If the $50,000 renovation project involved small areas of adjacent open floors, the retailer would be required to upgrade the lighting system on all affected floors, even if the cost of the upgrade were to involve hundreds of thousands if not millions of dollars.

Intro. 967 requires the owner of a covered building to perform all retro-commissioning and retrofit measures identified in the energy audit as having a simple payback of not more than seven (7) years on the systems of such building, prior to the date on which the building's energy efficiency report is filed, in other words, within a three-year period. NYMRA members who own buildings believe that in an economy as fragile as ours, a three (3) year payback would be more appropriate.

We urge the City to trust the market. Consumer demand and potential long term savings will require merchants to reduce their carbon footprints. Customers are demanding that the stores they deal with do business in a sustainable manner. Retailers will respond and get it done, but not on an artificial timetable. They will balance the cost of responding against all the other costs of doing business – acquiring merchandise, meeting payroll, providing health and pension benefits, advertising, complying with governmental requirements – and respond in a way that will reflect economic conditions, satisfy the market and not put them out of business. If government wants to encourage business to reduce its carbon footprint, it might find that a carrot is more effective than a stick.

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CATHOLIC COMMUNITY RELATIONS COUNCIL

TESTIMONY OF ROSEMARY GINTY, EXECUTIVE DIRECTOR
ON INT. 476-A, 564-A, 967 AND 973,
BEFORE THE ENVIRONMENTAL PROTECTION COMMITTEE.
JUNE 26, 2009

FOR THE RECORD

Good morning Mr. Chairman and members of the Committee.

My name is Rosemary Ginty. I am the Executive Director of the Catholic Community Relations Council, that represents the Archdiocese of New York and the Diocese of Brooklyn on city issues.

Thank you for this opportunity to testify today on these four bills dealing with a system for measuring, auditing and requiring existing buildings to become energy efficient to reduce greenhouse gas emissions. This is a topic of global importance. This legislative initiative of the administration and the Speaker is both admirable and bold. By necessity, the scope is broad. We welcome the opportunity to work together to make this initiative one that benefits New York City without imposing undue hardships.

Since I represent the interests of the Catholic Church in all five boroughs of New York City, my concern is with literally hundreds of local parishes and thousands of properties -- from cathedrals to chapels to schools and rectories, convents and parish centers. The properties are diverse and complex. Given the legislation's scope, I hope the council's decision-making process will allow sufficient time for all parties to understand the bills and their impact on various sectors of our city. For myself, I do not have all the facts to fully determine the affect of the legislation on our property and therefore, I am not taking an "in favor or opposed" position on the bills.

There are, however, certain areas that give us concern. I would like to share them with you and suggestions for improving the legislation:

1. The legislation covers (1) buildings of 50,000 SF or more or (2) two or more buildings on a single tax lot that together equal 50,000 SF. The second part of this definition will affect many parishes, since a church, a school and a rectory and/or convent on a single tax lot will together exceed the 50,000 SF threshold and parish buildings are on single tax lots more often than not. If any of these buildings were on a separate tax lot, they would be exempted, since individually, for the most part, each building is under 50,000 SF. By being on a single tax lot, all the buildings will be subject to the requirements of these bills. This does not appear to, nor should

it be the intent of this legislation. I would trust that this part of the legislation could readily be changed.

Let me add, the legislation exempts residences (1 to 3 family homes), regardless of square footage. I am not sure a rectory or convent is any different.

2. We have a number of closed buildings that should clearly be exempt from the requirements. Obviously there is limited money to spend on them. Any re-use of them should be audited at the time of their re-use to ensure energy efficiency.

3. Costs are a concern. The legislation is based on a five-year payback of the up-front costs. But you need to have money to save money. This is an issue of key importance for us – the costs for annual benchmarking, the professional audit costs and the capital cost for retrofitting and lighting systems for thousands of structures is a critical concern and one that we are attempting to assess and quantify. If conducting these audits and making the identified upgrades are mandated, then an "energy audit and upgrade fund" should be established by New York City to which nonprofits might apply for a recoverable grant to conduct the audits and implement the necessary improvements and upgrades. The nonprofit would repay the fund from the savings realized over five years.

We met on June 5 with Rohit Aggarwala, the Director of the Mayor's Office for Long-Term Planning and Sustainability and Robert Newman, the Director of Legislative Affairs for the City Council. The meeting was a good beginning to gain a better understanding of the complexities of the legislation. I look forward to further discussions with the council members and the administration as we gain a greater understanding of the legislation and its impact on the Church's property in the city.

Thank you for the opportunity to speak about this important issue.

NYC Council Environmental Protection Hearing - June 26, 2009

Notes for: Fredric Goldner, C.E.M.
Energy Management & Research Associates

I believe that there is much that can be done to improve the energy efficiency and reduce the environmental impact of energy use in NYC. I think that the direction of the legislation proposed begins to take us toward the correct path in effecting such improvements. I will go over a few points that I think deserve highlighting and then be happy to answer any questions the Council might have of someone who has not only trained others, but has the 'dirt under his fingernails' from being out in countless boiler/mechanical rooms and crawled around in buildings to help clients positively effect their facilities.

Int. No. 967 - ARTICLE 308

AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

- (Page 1 - §28-308.1)

  While I understand the rationalization of the focus on Central Systems, owned and operated by the facility, given that lighting is responsible for ~ 20% of NYC Bldg energy consumption, the energy audits should be required to evaluate lighting owned by the building, even where that resides in tenant spaces. There is no reason to wait until " Int 973" kicks in under a renovation clause, and/or rely on that Bill passing as well. Even if the Bill does not require such measures to be installed at the very least lets use this to identify those energy efficiency opportunities.

- (Page 2 & other places)

  "Simple Payback" - this terminology should be stricken from this document (and its corresponding use in audits), and be replaced with at least **simple Return on Investment (ROI)**. NO other business decision that I know of is made using the "payback" parameter. If we want energy improvements to be seriously considered, and be let to compete for a facility's limited capital with all the other potential uses of that capital, then at the LEAST we need to use a term such as **simple ROI**. I realize that this is just the inverse of payback, but by speaking in business terms begins to get Energy Efficiency Measures (EEMs) in the discussion. Laws are nice, but wouldn't it be better if the Real Estate industry didn't feel we were forcing this all down their throat.

- (Page 4 – Start bottom of page 3, -- Exceptions [who needn't do audits])

  #3 "The covered building has been certified under (LEED-EB) 2009 rating system" - this could be a loophole if a building were to get most of its points from the Non-Energy areas of the LEED system. Such building could still benefit from an audit and should not be exempt from this statute.

- Exception on top of Page 5 – could be exploited as a loophole:

  Could read (additions underlined):

  Exception. Where the owner determines post audit, in accordance with the rules of the department, that the actual cost of one or more of the retro-commissioning or retrofit measures

may exceed the estimates set forth in the audit by more than 20 percent and that the simple payback for such measure or measures **AFTER REASONABLE ENERGY EFFICIENCY MEASURE (EEM) COSTS ARE INPUT INTO THE ECONOMIC CALCULATIONS** may exceed 7 years, the owner shall not be required to implement such measure or measures. The owner shall substantiate such determination in a manner to be set forth in the rules of the department.

- (Page 6 - §28-308.4.1)

  It is incorrect to assume that newer buildings (those less than 10 years since completion) may not benefit from an energy audit. (Example of audit of 3 ½ y/o, 2.8 million sq. ft facility in Manhattan, designed by one of the top A&E firms in NY … many opportunities were found.)

- (Page 7 - §2. b.) " … Such energy audit performed prior to the completion of rule-making shall be signed and dated by a Professional Engineer, Certified Energy Manager, or Certified Energy Auditor and shall …"

  Just being a **Professional Engineer** does not mean that one knows anything about energy. There are PEs who do know about building energy issues, but those are the ones who have taken the time to learn about energy efficiency issues. PEs also include engineers with degrees in Structural, Chemical … and other areas which have little or nothing to do with building energy operations.

  The MOST important thing in the quality and value of an energy audit is the eye of a trained auditor. Building energy systems technology & operations training, and experience in the forensic engineering techniques that are required to conduct an audit are crucial if 1) these are going to be anything more than paperwork exercises, and 2) not mislead facility management into unjustified investments, but rather provide the guidance necessary to assist building owners to make wise decisions to cut their energy costs and reduce their environmental footprint.

  Certified Energy Managers (CEM) and Certified Energy Auditor (CEA) are trained specifically in this function.

  If we are serious about our goals with this bill then we must assure that audits are conducted by qualified practitioners. To do otherwise would just be taking two steps backward.

  - Please note that the AEE currently has certified just under 8,000 active CEMs & CEAs and of those about 700 are located in the tri-state area.

Notes for: Fredric Goldner, C.E.M.
Energy Management & Research Associates

Int. No. 973 - ARTICLE 310

REQUIRED UPGRADE OF ELECTRICAL POWER AND LIGHTING SYSTEMS

(Page 3, line 17 – Exceptions:)

- Exception of "estimated cost of upgrading the electrical power and lighting system, is less than $50,000." is too high a hurdle and misses many opportunities. We suggest a $10,000 or less threshold.

Int. No. 476-A - ARTICLE 309

BENCHMARKING ENERGY AND WATER USE

- This is a very good idea, understanding what you use is the first step. As my good colleague Paul Allen, the Energy Manger at Disney World has said "*If you can measure it, you can manage it*"

- Note that the prescribed Portfolio Manager (energy benchmarking tool) is not perfect, but is the best large scale tool available.

- Given its value, the schedule of the actions called for in this bill could/should actually be MORE aggressive.

ADDITIONAL SIGNIFICANT MISSED OPPORTUNITIES

- Enforcing the existing requirement for actual Combustion Efficiency tests and reporting the actual test results to owners/property managers as part of the Annual Boiler Self Inspections Report Submittal.

- Mandating sub-metering in electrically master metered buildings.

FNYHC FEDERATION OF NEW YORK HOUSING COOPERATIVES & CONDOMINIUMS

Federation of New York Housing Cooperatives & Condominiums

Devoted to the Interests of all Cooperatives and Condominiums

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Good Day Chairman Gennaro and members of the Environmental Protection Committee. My name is Gregory Carlson, and I am the Executive Director of the Federation of New York Housing Cooperatives and Condominiums (FNYHC), in addition to being the Executive Director of the New York Affordable Housing Management Association (NYAHMA) which represents owners and managers of affordable housing in New York State. Also I am President of the New York Association of Realty Managers (NYARM) which is a Property Management Association.

The Federation was established under a HUD 213 program in the early 50's which was to make housing affordable for returning veterans after world war two. Many of our members are constituted in the documents of being limited equity and still keeping the purchase of a cooperative affordable.

The Federation of New York Housing Cooperatives and Condominiums (FNYHC) applaud the Mayor's and City Council's effort to save energy, lessen the carbon footprint in our City and to do what we can to promote the "Greening" of NYC. As an educational association for cooperatives and condominiums, the Federation will always put a positive spin on the City energy efforts. The intro 967 will make it mandatory to do a once in a decade energy audit and if results show a pay back period of five years or less the building must do it or prove hardship. Intro 476A "Benchmarking Buildings" – has anyone tried to go to that website and filled out the documentation. The initial input is burdensome and may require extra professional help to get the information required. Intro – 564A NYC Energy Code – Extra costs involved such as the higher costs of equipment, energy consultant and other hidden costs. Intro 973 "Lighting Upgrades" While my organization has no objection to this bill because it primarily focuses on commercial property, I am concern about any lack of effort to get "LED" lighting approved by NYSERDA, Con Ed and others. All the aforementioned push "Compact Florissant Bulbs" which are know to contain mercury and no one has come up with a disposal plan.

Keep in mind, those of us who choose living in a cooperative or condominium consider ourselves as home owners and have been sending that message to legislatures and regulators for many years. Instead of being spread out, our homes are stacked on each other.

In these days of hard economic time for the residents and our member buildings, the Federation wants to "Protect our member buildings from Bankruptcy". With the water and sewer rates just passed with a 12.9% increase and cooperatives and condominiums

having increased their maintenance or carrying charges by 37.8% in the last six years, the question is where a coop or condo building is going to get the needed funds. Remember, we "Need Green to go Green".

At this time where there is limited access to capital markets, banks have tightened there procedures so less and less building can go to market. If you have an underlying mortgage for a cooperative, in most cases you need that lenders permission. NYSERDA's loan program was once an unsecured loan but lately banks want second mortgages for a NYSERDA loan which is much more time consuming and costlier. The problem is worse for a condominium where the only source to obtain funds from a lender is to pledge the income stream. If that's done already, who is going to lend condo money? What is the next step if my building is rejected for a loan?

Hardship – that needs to be quantified so that buildings know if they meet those criteria. When costing out the energy saving project(s), should there be a bench mark or ceiling on costs. Some come to mind, consider the following:

Percentage of the Building's assessed valuation
Percentage of the Building's budget
Percentage of the Buildings Reserve Funds

What happen when a building starts to undergo an energy project and an unexpected event happen and the building must spend a large portion of its reserve?

How much can a cooperative or condominium assess their residents?
Can the City provide incentives to help buildings pay for these mandate energy improvements? Since the J-51 Tax benefit program work to ensure safe housing in the City, why not have an Energy -51 tax benefit which would encourage jobs and promote health benefits to our city residents.

With all these unanswered questions, the Federation would be a willing partner to help solve these issues. A plan would be developed that would achieve the objectives of the City and feasibility to our "home owners". The city has offered wonderful goals for energy conservation but the timing may have been off. Boards are struggling with financial problems now and are trying to figure out how to get "blood from a stone".

Again the Federation is willing to participate in the on going debate and try to figure out a solution fair and just for all.

Thank You

Respectively submitted
Gregory J. Carlson
Executive Director
Federation of New York Housing Cooperatives & Condominiums

Council of New York Cooperatives & Condominiums
INFORMATION, EDUCATION AND ADVOCACY

250 West 57 Street • Suite 730 • New York, NY 10107-0700

Testimony Before the Environmental Protection Committee

June 26, 2009

Good morning Chairman Gennaro and members of the Environmental Protection Committee. My name is Mary Ann Rothman, and I am the Executive Director of the Council of New York Cooperatives & Condominiums (CNYC Inc), a membership organization comprised of housing cooperatives and condominiums located throughout the five boroughs of New York City.

In our city, more than 500,000 families live in housing cooperatives and condominiums; the majority of these people are of moderate income and thousands are seniors on fixed incomes. The City Council has historically endeavored to ensure fair and equitable treatment for home owners in cooperatives and condominiums from Fordham Road to Far Rockaway to Fresh Meadows, and we appreciate your efforts on our behalf.

It goes without saying that the national economic crisis has impacted New York cooperatives and condominiums. Many shareholders and unit owners have suffered job loss or salary reduction, and their ability to sell their units has declined with the credit crunch and reduced pace of property sales city-wide. Operating costs are up, with property taxes increasing each year and water rates rising astronomically. Many of our members cooperatives and condominiums are struggling to make ends meet, or are being forced to make difficult choices with scarce resources.

CNYC has long supported energy conservation and has encouraged its members to take advantage of programs available through NYSERDA and the various utilities to reduce energy use.
We congratulate the City Council and the Mayor's Office of Sustainability and Long Term Planning for addressing this important issue.

The goals of the four proposals before you today are admirable. Indeed, many of our member cooperatives and condominiums have, on their own initiative, begun to make many of the environmentally sound improvements contemplated in the legislation. CNYC also recognizes that proper maintenance of new equipment is vital to achieving predicted savings, and we encourage our members to have their building supers take the comprehensive energy training program that is now part of the curriculum of the Thomas Shortman Training Fund of Local 32BJ of the Building Service Employees. CNYC would welcome the creation of new incentives to enable more buildings to adopt 'Green' practices, would happily work with you to craft such incentives. However, we cannot responsibly support the creation of new unfunded mandates as proposed in INT.476A and INT. 967. It is within this context that I make the following comments on the proposed legislation:

CNYC is not opposed to Int. 973 regarding lighting upgrades. Experience has shown that investing in efficient lighting has a remarkably short pay back time, and the law would only affect a building that undertakes an upgrade on its own volition.

Nor are we opposed to INT 564A, creating a New York City Energy Conservation Code, primarily because it, too, would apply only to projects that have been green-lighted by the homeowners. We do recognize that there would be additional costs associated with this bill, including new requirements for a certification by a "lead energy professional" and the preparation of an energy analysis and all supporting documentation. However, we understand that the costs are relatively small, and that meeting them would be in the long term interest of both our members and the City's environment.

But we do have serious concerns about INT. 476A, mandating the benchmarking of central systems' energy use for public disclosure. As I mentioned, many of our members are monitoring energy use already with an eye toward making sound investments that will reduce their consumption and their energy bills. But our experience is that using the online benchmarking tool is neither simple nor cost-free, and we are not convinced that the major utilities will take the necessary steps to provide this information directly to the City.

We also question the usefulness of disclosing the energy statistics of "comparable buildings," How would this comparability be determined? What would tell the modeler whether a building is populated by large families or by seniors living alone? These demographics heavily impact patterns of energy use, but are not likely to be reflected in any computer modeling of "comparable buildings."

While the current proposal has eliminated the requirement that property owners collect data from residential tenants, it still requires that this data be collected from any commercial units in a residential building. The administrative burden of this mandate may prove to be much greater than the City foresees, and again we are reluctant to assume any new costs in a time of true fiscal austerity.

Finally, we strongly oppose INT 967 regarding energy audits, retro-commissioning and retrofits of building systems. Our concerns are both financial and practical. The initial costs of complying with this bill are considerable – an audit alone can cost tens of thousands of dollars, and the capital outlay for the required improvements can total hundreds of thousands of dollars if not more. There will also be on-going fees associated with the filing of all the reports this law requires..

But perhaps most troublesome is the absolute requirement that a building implement all measures deemed to have a payback of 7 years or less. This removes from the Board its discretion to run its cooperative or condominium; it imposes large expenditures on buildings whose shareholders or unit owners maybe struggling to make ends meet, forcing boards to raise carrying costs today in anticipation of energy savings half a decade away.

Adding to the uncertainty, the legislation leaves many items undefined, deferring to a future administrative rulemaking processes. For example, the definition of "financially distressed" is vague and subject to an undetermined agency's rule. Other important concepts left to DOB rulemaking include:

– the definition of an "energy professional,"
– the standards for and content of the mandated energy audits,
– the types of energy modeling software that may be used, and
– the circumstances under which a property owner can obtain an extension of time to meet the deadlines in the law.

We urge the Council not to adopt vague legislation that will directly affect thousands of New York City homeowners, particularly in this time of financial crisis.

Conventional wisdom is that the full effect of the recession on New York City's economy has yet to be realized. We must anticipate more job losses and more foreclosures before any widespread turnaround develops. In short, this is a particularly inopportune time for expensive new mandates on homeowners. We understand there are some resources available to help fund energy upgrades, and we certainly support all efforts to improve energy efficiency and reduce global warming, but we believe it is unfair and wrong to mandate enormous capital expenditures by the families and individuals who call cooperatives and condominiums their homes.

We suggest linking the improvements to meaningful incentives, such as an enhanced and financially realistic J-51 program or property tax abatements calibrated to demonstrated energy savings. Such programs would result in "greener" homes, new jobs, and an acknowledgment of the City's leadership in environmental stewardship.

Thank you for your consideration. I welcome any questions you might have.

SINGLE COPY OF THIS PAGE (ONLY) - FOR THE CHAIR

NYC Council Environmental Protection Hearing - June 26, 2009

Notes for: Fredric Goldner, C.E.M.
Energy Management & Research Associates

Very briefly:

- Past International President of AEE
- Serve very actively on a number of international engineering and energy industry committees and boards including:
  - the Certified Energy Manager Board (C.E.M. - which is referenced in Int. No. 967, Article 308),
  - ASHRAE Technical Committees 6.6, 6.1 & 7.6 and the
  - ASPE DWHDM Committee.
  - Board of Trustees for the Energy Master Planning Institute
- In 2007, was inducted into the **Energy Managers Hall of Fame,** for **lifetime of achievement in promoting the practices and principles of Energy Management**

In relation to energy audits:

- over the past 1/4 century, in addition to conducting energy efficiency audits and projects on the gamut of building types present in NYC,
- have reviewed literally hundreds of audits done by a very wide range of providers
- have taught over 10,000 individuals, including other practitioners on how to conduct energy audits, from the graduate (as Adjunct Prof. at NYIT) to professional levels.
- For the past 5 years I have been teaching a professional development seminar entitled *Energy Auditing Fundamentals* for AEE to folks across N. America.
- In 2007 my firm, EMRA, audited over 25 million square feet of facility spaces responsible for some $50 million+ in energy costs
- I am, as, if not more, comfortable crawling around in dirty sooty boiler rooms and basements as I am here today in this suit.

THE THIRD BREVOORT CORPORATION
11 FIFTH AVENUE
NEW YORK, NEW YORK 10003-4342

My name is Diane Nardone. I serve as the President of the Board of Directors of The Brevoort, a residential cooperative located at 11 Fifth Avenue here in the City. The building is approximately 400,000 square feet with 288 apartments.

Two years ago I posed the following question to my fellow board members, "How can we refit our 1955 building to meet the economic, social, and environmental challenges of the 21st century?

That question inspired the Board to implement a comprehensive sustainability plan that attempts to reduce our energy consumption and costs by an ambitious 50%.

Summarizing our plan in three minutes is no easy task, but here are the highlights:

1. We installed compact fluorescent light bulbs, converted to green cleaning products, and require shareholders to install energy star appliances as they replace old ones.

2. We installed a 1266 square foot green roof on the south tower last spring and will install an additional 2272 square foot green roof on the north tower next spring at a total cost of $56,000.00. A one-time property tax credit of $4.50 for each square foot of green roof will reduce the capital cost to $40,000.00.

3. We start the conversion of our boilers from No. 6 oil to cleaner-burning natural gas on July 6th, which will save the building a minimum of $70,000.00 per year. The conversion cost is $108,000.00 with a payback in 1.58 years.

4. We will begin replacing 2200 windows and 110 terrace doors with high performance, energy efficient glass, this September, at a cost of $1,613,025,00.

5. We hope to install a Co-Generation system at a cost of $3,200,000.00, contingent on NYSERDA approving our overall energy plan, providing us with a grant for $603,000.00, and a "Smart Loan" for $1,440,000.00.

   The Co-Gen project will save the building an additional $350,000.00 in annual energy costs, with a payback in 9.8 years.

Based on these experiences, I view the Mayor's "Green Grid" plan as both realistic and achievable since it requires existing buildings of 50,000 square feet or more to implement energy upgrades that anticipate a 5 to 7 year payback.

It takes vision, passion, and courage to tackle problems as monumental as the vulnerability of this planet. I urge this Committee to support Mayor Bloomberg's "Green Grid" for the sake of all New Yorkers who live here now and all those who will follow us.

But please, if forms are involved, make them user friendly, not like those required for the green roof property tax credit or by NYSERDA.

Thank you.

Diane C. Nardone
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FOR THE RECORD

New York City Council

Committee on Environmental Protection

Re:

Green Energy Efficiency Initiatives - Intros. 476A, 564A, 967, 973

testimony of

David M. Newman, M.A., M.S.
NYCOSH Industrial Hygienist

June 26, 2009

Good morning Councilmember Gennaro, members of the Committee on Environmental Protection, and co-sponsors of these legislative initiatives aimed at making buildings more energy efficient.

My name is David Newman. I am an industrial hygienist with the New York Committee for Occupational Safety and Health. NYCOSH is a non-governmental, non-profit organization that has provided technical assistance and comprehensive training in occupational safety and health to unions, employers, government agencies, and community organizations for 30 years.

NYCOSH is well positioned to offer expert comment on these green legislative initiatives, as our work occurs at the intersection of occupational health, environmental health, and public health. Since the tragic events of September 11, 2001, NYCOSH has worked closely on issues of environmental health with unions, employers, and non-profit, immigrant, community, and tenant organizations at Ground Zero and throughout Lower Manhattan. NYCOSH has conducted technical training in the requirements of EPA's Resource Conservation and Recovery Act (hazardous waste) for New York City Transit for over 20 years, and has conducted additional training for the Department of Environmental Protection and the Department of Health and Mental Hygiene. NYCOSH provides training and technical assistance on green cleaning products for numerous unions and community-based organizations. We are assisting Local 32 BJ, SEIU with their training program on energy efficient building operations for building managers. We participate with other labor, environmental, community, and academic groups in the on-going roundtable discussion sponsored by Urban Agenda aimed at fostering a more environmentally sustainable city, along with good, green collar jobs.

NYCOSH supports the thrust of the legislation under consideration today. We also appreciate the support of Speaker Quinn, of the Council, and of Mayor Bloomberg for green initiatives in general. However, as with all legislation, the devil is in the details, and some significant details are missing from Intros. 476A, 564A, 967, and 973. NYCOSH shares the concerns of other labor, environmental, and community organizations also testifying here today that these intros do not adequately provide for appropriate job standards, worker and tenant protections, and enforcement mechanisms.

Further, after careful review of the proposals, NYCOSH has identified two additional areas of concern that we believe warrant consideration and strengthening before this legislation moves forward. These are the issue of indoor environmental quality and the issue of occupational safety and health for workers involved in green construction, retrofitting, maintenance, and manufacturing.

Indoor Environmental Quality

Energy efficiency measures that offer environmental and cost benefits can have the unintended consequence of adversely impacting indoor environmental quality for building occupants. Stated differently, energy efficiency designs or retrofits focus on achieving minimum energy expenditure while sometimes ignoring the need for adequate quantities of outdoor air for indoor ventilation. Criteria for acceptable air quality have existed for many years for the industrial workplace and for outdoor environments. More recently, it is well documented that the "tight building" energy conservation measures instituted during the early 1970's, by minimizing the infiltration of outdoor air, contributed to the buildup of indoor air contaminants. This failure to anticipate hazards had unforseen and widespread health consequences.

The National Institute for Occupational Safety and Health (NIOSH) identified inadequate ventilation as the primary source of indoor air quality problems in 52% of approximately 500 indoor air quality investigations. The range of investigations of indoor air quality problems encompassed complaints from one or two employees to episodes where entire facilities were shut down and evacuated until conditions were assessed and problems corrected. Complaints were often subjective and nonspecific and were closely associated with periods of occupancy. Symptoms included headache, dizziness, nausea, tiredness, lack of concentration, and eye, nose, and throat irritation. Symptoms often disappeared when the employees left the workplace.

According to the Occupational Safety and Health Administration (OSHA), "the most effective engineering control for prevention of indoor air quality problems is assuring an adequate supply of fresh outdoor air through natural or mechanical ventilation."

Although Intro 564A references "unusually tight construction," it does not acknowledge the potential adverse consequences for indoor environmental quality that may arise from energy

conservation measures. It does not propose requirements for assessing mechanical ventilation in light of energy conservation changes. It does not increase the requirements for mechanical ventilation currently specified in the New York City Mechanical Code, Table 403.3 (Required Outdoor Ventilation Air), which may not be adequately protective after the implementation of energy conservation measures.

Requirements for pressure ventilation in a building include air for combustion, air for ventilation, air for venting, make-up air for mechanical exhaust, and ventilation for human needs. NYCOSH urges the Council to reconsider this legislation in light of the need to balance energy conservation with the need to provide adequate mechanical or natural ventilation, and specifically adequate quantities of outdoor air, to the indoor environment.

NYCOSH suggests that this legislation incorporate the minimum guidelines for mechanical ventilation and indoor environmental quality promulgated by the U.S. Green Buildings Council in its Leadership in Energy and Environmental Design (LEED) Green Building Rating System (LEED for Existing Buildings: Operations and Maintenance) as *minimum* NYC requirements:

- mechanical supply of outdoor air under normal operating conditions at the levels specified in ASHRAE 62.1-2007, or if this is not feasible due to technical constraints, mechanical supply of at least 10 cubic feet per minute (cfm) of outside air per person, and
- appropriate measurements that demonstrate compliance with requirements for supply of outside air, and
- implementation of a maintenance program for the mechanical ventilation system, including regular testing and maintenance.

NYCOSH also suggests that this legislation incorporate, as a *target level* for NYC buildings, the recommendation for additional mechanical ventilation promulgated by the U.S. Green Buildings Council in its Leadership in Energy and Environmental Design (LEED) Green Building Rating System (LEED for Existing Buildings: Operations and Maintenance):

- mechanical supply of outdoor air to occupied spaces at levels at least 30% greater than the minimum required by ASHRAE 62.1-2007.

Occupational Safety and Health

The proposed legislation may require new installation, retrofitting, repair, or maintenance of building electrical, heating, gas, ventilation, lighting, and water systems. The new equipment, products, skills, and work procedures inherent in implementing these energy conservation measures will expose workers both to familiar occupational hazards and to new hazards with which they may have no experience. Some of these work operations may also potentially subject building occupants to avoidable hazards from ongoing work operations.

As new workers, equipment, products, and methods are introduced into the workplace, injury and illness rates are likely to increase due to inexperience and/or inadequate training. These changes in work and the work environment make attention to hazard assessment and occupational safety and health training essential. A job hazard assessment is an analysis of job tasks and conditions to identify hazards before workers are exposed to them. Assessment is a pre-requisite to controlling (eliminating or reducing) hazards.

Unfortunately, neither Intros. 476A, 564A, 967, and 973 nor PlaNYC 2030 acknowledges that "green" work can be just as dangerous as other types of work. Neither addresses the need for additional consideration of worker and occupant health and safety issues.

NYCOSH urges the City Council to strengthen these legislative proposals, and future similar proposals, to ensure that safe and healthful work is an integral component of required energy conservation and environmental protection measures. Green legislative measures should require that:

- employers utilize applicable legal standards for safe and healthful work, including training and hazard assessment;
- where legal standards do not exist or are outdated, employers apply recognized best safe work practices;
- employers provide workers with site-specific and task-specific occupational safety and health training;
- employers who receive stimulus funding implement comprehensive safety and health programs, including written safety and health programs, hazard assessment and control, occupational safety and health training, and health and safety committees with worker- and, where present, union-, participation.

In addition, NYCOSH urges the City Council to call for strict enforcement of applicable occupational safety and health and environmental laws, and to call for additional legal standards where none exist or where existing standards are obsolete.

Thank you for your support of green initiatives, and thank you for this opportunity to present NYCOSH's views on the importance of safety and health in energy efficiency efforts.

CHPC
CITIZENS HOUSING & PLANNING COUNCIL

EXECUTIVE DIRECTOR
Jerilyn Perine

CHAIRMAN
Marvin Markus

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Sander Lehrer

TREASURER
Mark Alexander

Testimony of Jerilyn Perine

Executive Director of the Citizens Housing and Planning Council

To the New York City Council

Environmental Protection Committee

Council Member James F. Gennaro, Chair

June 26, 2009 10:00 AM; Council Chambers City Hall

Proposed Int 476-A - By Council Members Mark-Viverito, Recchia Jr., Avella, Brewer, Fidler, Gentile, James, Liu, Martinez, Nelson, Seabrook, Weprin, White Jr., Garodnick, Lappin and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to benchmarking the energy and water efficiency of buildings. Proposed Int 564-A - By Council Members Garodnick, Brewer, Fidler, Gonzalez, James, Koppell, Martinez, Sanders Jr., Seabrook, Weprin, White Jr., Gerson, Lappin. and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to establishing a New York city energy code. Int 967 - By Council Members Gennaro, Brewer, Comrie, Dickens, Fidler, Garodnick, Gioia, James, Koppell, Lappin, Martinez, Mitchell, Palma, Recchia Jr., Reyna, Rivera, Stewart Weprin, Nelson, Liu and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to requiring energy audits, retro-commissioning and retrofits of building systems. Int 973 - By Council Members Recchia, Jr., Comrie, Dickens, Fidler, Garodnick, Gioia, James, Lappin, Martinez, Mitchell, Nelson, Reyna, Rivera, Stewart, Liu and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to upgrading lighting systems in existing buildings greater than 50,000 gross square feet.

My name is Jerilyn Perine and I am the Executive Director of the Citizens Housing and Planning Council. Thank you for the opportunity to testify. We strongly support the goals of the legislative initiative that you are considering; however we are concerned about many of the details of their implementation.

1. Most striking is that the proposed legislation does not address *existing* regulatory impediments to green development and technology. For example, photovoltaic panels are not considered a permitted height obstruction in current zoning regulations. Nor are heating systems when placed on the roof. This discourages their inclusion in building design. There are many such examples, which we believe, could facilitate green technologies, with little or no additional cost to the City. We have attached a list of such items along with our comments.

2. The legislation does not address buildings less than 50,000 sq. ft., which we estimate to be 68% of the City's housing units, leaving approximately 2.26 million units uncovered by the legislation. **Well established tools such as the J-51 tax exemption program and low interest rehabilitation loans should be adapted as much as possible to achieve the goals of transforming NYC's older housing stock.**

3. The proposed Energy Code will require the Department of Buildings to significantly expand their overview of building renovations. CHPC is concerned that adequate resources and training are provided to the DOB to ensure that their staff can adequately enforce the new regulations.

4. The rules should clearly specify achievable energy savings goals based on *similar* buildings with similar uses and operations in NYC and national standards should be carefully considered before applying them wholesale to NYC's building stock.

5. One bill requires the owner to engage an energy professional to perform an audit. The qualifications for these professionals should be clearly specified. And while larger owners will be able to find them, smaller owners may have a difficult time. The City should ensure that a sufficient number of qualified professionals are available in the marketplace. The projected cost savings may not be enough of an incentive to encourage building owners with low and moderate income tenants to comply with energy upgrades. Nor is it clear as to what happens if the projections do not match up with reality in the future.

6. The Benchmarking bill requires building owners to annually collect and report energy and water usage however the bill offers a practical way to collect the data directly from the utility companies. Surely whatever privacy and bureaucratic issues the utility companies raise could be overcome in order to ensure the accurate and timely collection of this important information

We have submitted more detailed comments on this legislation which we hope provides more detail. Thank you for your consideration and I would be happy to answer any questions you may have.

The Citizens Housing and Planning Council, founded in 1937 is a not for profit policy and research organization dedicated to improving housing and neighborhood conditions through the cooperative efforts of the public and private sector.

Comments submitted by

Green Building Subcommittee of the Citizens Housing and Planning Council

To the New York City Council

Environmental Protection Committee

Council Member James F. Gennaro, Chair

June 26, 2009 1:00 AM; Council Chambers City Hall

Proposed Int 476-A - By Council Members Mark-Viverito, Recchia Jr., Avella, Brewer, Fidler, Gentile, James, Liu, Martinez, Nelson, Seabrook, Weprin, White Jr., Garodnick, Lappin and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to benchmarking the energy and water efficiency of buildings. Proposed Int 564-A - By Council Members Garodnick, Brewer, Fidler, Gonzalez, James, Koppell, Martinez, Sanders Jr., Seabrook, Weprin, White Jr., Gerson, Lappin. and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to establishing a New York city energy code. Int 967 - By Council Members Gennaro, Brewer, Comrie, Dickens, Fidler, Garodnick, Gioia, James, Koppell, Lappin, Martinez, Mitchell, Palma, Recchia Jr., Reyna, Rivera, Stewart Weprin, Nelson, Liu and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to requiring energy audits, retro-commissioning and retrofits of building systems. Int 973 - By Council Members Recchia, Jr., Comrie, Dickens, Fidler, Garodnick, Gioia, James, Lappin, Martinez, Mitchell, Nelson, Reyna, Rivera, Stewart, Liu and Yassky - A Local Law to amend the administrative code of the city of New York, in relation to upgrading lighting systems in existing buildings greater than 50,000 gross square feet.

The Citizens Housing and Planning Council (CHPC) strongly supports the goals of the City's Greener, Greater Buildings Plan and applauds this legislative initiative. CHPC has long been an advocate for green building technology, particularly in residential buildings, both to improve energy performance and promote a healthy environment. With its dense pattern of development and excellent public transit system, NYC is already energy efficient. However, much more can be done. The transformation of the built environment is essential if New York City is to achieve a higher level of energy efficiency, reduce carbon dioxide emissions and improve the environment for residents.

For all of these reasons, CHPC supports regulatory and legislative initiatives which remove barriers to green development and technology, encourage their widespread use and application, and create incentives to adapt NYC's older built environment to meet the needs of the 21st century.

While CHPC supports the goals of the proposed legislation, we are concerned about the many of the details of implementing them.

Our concerns include:

- The potential financial burden and lack of access to financing, especially for owners of medium sized residential buildings.
- The potential administrative burdens the regulations place on both owners and on government agencies, such as the Department of Buildings.
- The need to develop simple, consistent rules and procedures to ensure successful implementation of any new laws.

The legislation would govern the universe of buildings almost identically, regardless of their size and occupancy status. However, building operations vary widely, and energy uses are sometimes unique to specific uses, such as residential vs. institutional buildings, or the great variety of the use of interior space such as car parking, mechanical areas, and bike storage. The rules implementing the legislation should clearly delineate specific achievable energy savings goals based on *similar* buildings with similar uses and operations in NYC, while maintaining simplicity and consistency. Any subsequent rules and regulations should clearly define *similar* buildings to ensure ease of compliance.

The proposed Audits, Retro-Commissioning and Retrofits of Building Systems bill requires the owner to engage an energy professional to perform an audit, identify improvements, perform a cost analysis and certify that the building is in compliance after installation of the energy saving improvements. There are two concerns regarding this requirement.

First, since a qualified energy professional will be required to perform the audits, the bill, or certainly any subsequent rules, should specify the qualifications for these professionals. In addition there is a concern that sufficient numbers of such trained and qualified professionals may not be available in the time frame set out in the legislation. While this is most likely not an issue for larger property owners, smaller owners of individual buildings which are subject to the law may have a difficult time finding a qualified professional at a reasonable price.

Second, the projected cost savings, determined by dividing the cost of the investment by the annual energy savings, may not be enough of an incentive to encourage all building owners to comply with energy upgrades. CHPC recommends additional financial incentives in the form of real estate tax exemptions and low interest improvement loans from the City to encourage building owners to participate.

The Benchmarking Energy and Water Use bill requires building owners to annually collect and report energy and water usage at their expense. Requiring building owners to research and input the energy and water usage into an electronic database imposes an administrative burden. The need to collect this information directly from non-residential tenants complicates the task.

The direct upload provision referenced in the bill offers a practical way to collect the data directly from the utility companies. Since this system would provide accurate and timely reporting of this information which could then be better maintained and analyzed over time, we encourage the City to work closely with the utility companies to use such benchmarking tools, rather than asking individual building owners and their tenants to collect and input the information.

The proposed Energy Code will require the Department of Buildings to expand their overview of building renovations. Although there have been operational improvements in the Department of Buildings, this legislation will impose new and more complex technical requirements, expand the universe of buildings undergoing rehabilitation that will be subject to the new regulations, and increase administrative tasks required of the Department and the real estate community. CHPC is concerned that adequate resources and training are provided to the DOB to ensure that their staff can adequately enforce the new regulations.

The proposed legislation does not address existing regulatory impediments to green design. In addition to new legislation, an effort should be made to reform existing regulations to accommodate green development and technology. For example, photovoltaic panels are not considered a permitted height obstruction in current zoning regulations. Attached is list of regulatory impediments which we believe, if changed, will facilitate adoption of green technologies in New York City, with little or no additional cost to the City of New York.

Finally, the legislation does not address buildings less than 50,000 sq. ft., which constitutes much of the City's housing stock. While defining residential buildings by square footage rather than the number of units, makes estimating the scope of the legislations application difficult, we expect that it could cover buildings with 50 units or more. Based on that assumption, the 2008 NYC Housing and Vacancy Survey estimates that approximately 1.06 million or 32% of NYC's housing units are in buildings with 50 units or more. This means that 68% of the City's residential housing units or approximately 2.26 million are not covered by the legislation.

CHPC supports practical, financeable initiatives to improve energy performance in smaller buildings as well.

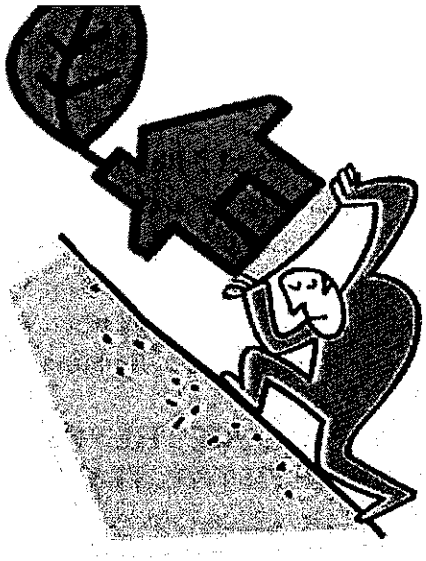
We encourage the Council to consider ways that financing the green rehabilitation of buildings in NYC can be made more attractive and accessible for a wider range of developers and owners; how the greatest amount of private investment can be leveraged for the smallest amount of public funding; and how we can achieve the maximum positive improvements to NYC's built environment.

Well established tools such as the J-51 tax exemption program and low interest rehabilitation loans should be adapted as much as possible to achieve the goals of transforming NYC's older housing stock to meet the objectives of the proposed legislation.

Thank you for the opportunity to submit our comments for your consideration. If you or your staff have any questions or require additional information please feel free to contact Jerilyn Perine, Executive Director of CHPC at jperine@chpcny.org

Green Housing Ideas Discouraged in NYC

'CONSERVE ENERGY BY OCCUPYING SMALLER SPACES'



a) It is actually illegal under the Multiple Dwelling Law for more than 3 unrelated people to share a housing unit

b) Multiple Dwelling Law, the Zoning Resolution and real estate tax exempt programs set out minimum Floor Area Ratios, which make it extremely difficult to design and build compact, flexible units for single people

'USE SUSTAINABLE ENERGY TECHNOLOGIES'

ConEd does not allow excess energy created by sustainable energy technologies to be fed back into the grid. This discourages the creation of onsite power generation from fuel cells, micro-turbines or co-generation - which uses exhaust heat from electricity for space heating or cooling.

'ALLOW A BUILDING TO BE COOLED NATURALLY IN THE SUMMER'

The Building Code only permits shading devices on a residential window to project 9 inches. To be energy efficiency, shading devices need to project at least 2ft 6 inches, and more if the window is larger. The only way to permit shades of this size is to follow a complex process to apply to obtain revocable consent from DOT.

'INCREASE THE ENERGY EFFICIENCY OF HEATING SYSTEMS'

If a boiler room is placed on the roof of a building it allows for easy ventilation and combustion air supply which is extremely important for the boiler to be energy efficient (and safe). If it is placed in the cellar a boiler system will require electrically-powered ventilation. However, boilers rooms are not classed as 'permitted obstructions' on roofs according to The Zoning Resolution, therefore must be included in the building's Floor Area Ratio. This does not encourage this feature in NYC new construction.

'DISCOURAGE CAR USE WHERE DEVELOPMENTS ARE NEAR TO MASS TRANSIT'

Current parking requirements are governed by zoning districts therefore new residential developments are often required to create unnecessary parking even if they are situated right next to subway or rail stations. Providing shared parking areas also does not satisfy parking requirements in these zoning districts.

'REDUCE HEATING AND COOLING REQUIREMENTS BY BUILDING GREEN ROOFS'

Green roofs have been shown to reduce heat loss and energy consumption in the winter and keep a building cool in the summer and can naturally reduce storm-water run off and filter pollutants from rainwater. However, green roofs do not count towards open space requirements in the Zoning Resolution therefore making it more costly to include in development projects.

'MAKE IT EASY FOR PEOPLE TO BIKE TO WORK'

In order for a developer to provide a bicycle room in a commercial building - which would then grant it a certification point within the LEED (Leadership in Energy and Environmental Design) Green Building Rating System - a shower would also need to provided, for the logical reason that people often want to change and shower after riding their bike to work. The Department of Buildings do not permit showers in commercial or manufacturing buildings.

"REDUCE THE VOLUME OF STORM-WATER BURDENING OUR SEWERS WITH THE ISTALLATION OF DRY-WELLS"

Drywells are not generally permitted by the Department of Environmental Protection, even when the soil would be ideal. The alternative is to detain the water and pump it to the city storm-water sewer. The tank and pumping system required is very large and also requires an emergency generator.

"USE PHOTO-VOLTAIC PANELS ON ROOFS TO GENERATE ELECTRICITY"

Photo voltaic panels are not a 'permitted obstruction' as defined in the Zoning Resolution. This makes it incredibly difficult to fit PV on any roof, given FAR limits. It also severely limits the location of the panels.

"INSTALL ENERGY-EFFICIENT WINDOWS TO IMPROVE ENERGY INSULATION"

In a historic district designated by the Landmarks Preservation Committee, the 'historical character' of the building and/or the historic district is the most important assessment of a new window type. It is extremely difficult to find a compromise between the most energy efficient windows, the requirements of the Landmarks Commission and the cost of the windows.

If you have any comments or some further suggestions for this feature, please email swatson@chpcny.org

LISC
New York City

Testimony of LISC NYC
On "The Green Bills"
NYC Council Committee on Environmental Protection

Friday, June 26, 2009

Good morning; my name is Ariel Behr and I am a Community Development Officer at LISC NYC. LISC is a national community development intermediary organization that helps community-based groups to transform distressed communities and neighborhoods into healthy ones by providing capital, technical expertise, training and information. In NYC, LISC has provided over $160 million in loans and grants and over $1.5 billion in equity to more than 75 community development corporations (CDCs), resulting in the development close to 30,000 units of affordable housing in Harlem, the South Bronx, and Brooklyn.

I want to begin by saying that overall we are very supportive of the Mayor's PLANYC initiatives, and of the sustainability and energy-efficiency goals embodied in the bills that are the subject of today's hearing. Reducing energy consumption in residential housing helps to slow climate change; improves health and quality of life for residents; and has the potential to create green job opportunities for workers who have been displaced or shut out of our current economy. Just as importantly, the savings realized from energy-efficiency measures enhance affordability for residents and help preserve financial viability for housing owners who are hard-pressed by rising operating costs. But while we strongly support the goals of the "green bills" under

discussion today, we do have questions and concerns about the way in which these new rules and programs will be implemented. Most of our questions and concerns focus on the Audits and Retrofits bill.

Before getting into our specific concerns, I want to briefly give you a sense of where we are coming from, and the type of affordable housing with which we have the most experience. Our "core" portfolio consists of approximately 10,000 units of affordable rental housing that LISC and its affiliate the New York Equity Fund developed in partnership with local community-based organizations, using Low Income Housing Tax Credits and City subsidy to redevelop formerly city-owned, tax-foreclosed buildings. These projects, located in Brooklyn, the Bronx, and Manhattan, overwhelmingly serve families with incomes below 60% of area median income (AMI), and are key affordable housing assets in their neighborhoods, and in a city that has a chronic and severe affordable housing shortage. While the majority of the buildings are small (12 units on average), there are some larger buildings that would meet the 50,000 square foot threshold stipulated in the Audits and Retrofits bill. We also work with our community-based nonprofit partners to acquire and preserve at-risk federally-assisted housing (i.e. with Project-Based Section 8 subsidies); and a few of our partners already own federally-assisted housing, most typically Section 202 elderly projects. These HUD-assisted projects are typically larger in size – above the threshold that would make them subject to the requirements of the Audits and Retrofits bill.

For us, increasing energy efficiency in the housing portfolios we work with is not a luxury, and not "the right thing to do" but rather, it is a critical part of preserving long term affordability. In

recent years, as we've tracked maintenance and operating expenses in our tax credit-financed portfolio, we have seen significant cost increases – particularly in utilities including heating fuel, electricity, and water/sewer charges, where increases have been much higher than anticipated in the original underwriting. The ability of these projects to provide quality affordable housing, while at the same time meeting financial obligations, is being severely strained by these large increases in operating costs. In response we've developed a Green Initiative to link our buildings to weatherization and energy-efficiency resources – such as the Weatherization Assistance Program and NYSERDA's Multifamily Performance Program – wherever possible.

However, not all buildings that need energy-efficiency measures will qualify or be able to make use of the existing programs. By the same token, not all buildings that need and could benefit greatly from energy-efficiency retrofits will be able to comply with the requirements of Intro 967 without additional assistance. Which brings me to our central concern about the bill: it is not tied to a financing source to assist buildings and owners that are unable either to pay the cost of retrofits up front, or to obtain financing for them.

The bill contains provisions for exempting or extending the requirement for "financially distressed buildings" as well as owners of buildings that, despite good faith efforts, are unable to obtain grants or loans to finance the required retrofits. We support these provisions because they protect buildings that are already marginal or troubled financially. But, in the absence of financial assistance for such buildings to help them meet energy-efficiency targets, large portfolios of housing that most need and could most benefit from retrofits may be left behind. We understand that the City plans a pilot revolving loan fund, using $16 million in stimulus

funding through the Energy Efficiency Block Grant program, to begin to meet this need. We'd like to hear more detail as to how the revolving loan would be implemented and accessed. We would also point out that $16 million will not come close to meeting the need. Additional resources will need to be identified, and thought should be given to the range of financing tools and products needed (in some cases low-interest loans are appropriate; in other cases grant funds are necessary).

We would also urge all agencies and levels of government to scrutinize how their programs and guidelines can work together to meet the goals of this legislation, and to change rules and programs that now may be working at cross-purposes. For example, under current rules a building cannot access Weatherization Assistance Program funding more often than once every 15 years, although the Audits and Retrofits bill calls for upgrades every 10 years.

Also, while the exception for "financially distressed buildings" includes buildings participating in city-managed financial assistance programs, scopes of work for buildings rehabbed with city subsidy do not include many energy-efficiency measures that cost more up front but pay for themselves in lower operating costs over time. Current pressures on the City's capital budget pose a challenge to these types of investments. There have been times when we have observed tension between greening and energy-efficiency goals and the budgetary constraints of the housing subsidy programs that our properties rely on.

I also want to echo the concerns of ANHD, Tenants and Neighbors, and other advocacy groups that have expressed worry about the impact of the retrofit requirement on tenant rents. Owner

investments in energy-efficiency retrofits that pay for themselves in seven years should not translate into permanent rent increases for tenants through MCI rent increases or discretionary rent increases.

There is some language in the bill that we would like clarification on: these include the definition of and expectations for retro-commissioning, and the definition of financial distress (i.e., what indicators will be considered at thresholds, and which city-managed financial assistance programs will trigger a designation of distress).

In conclusion, I would like to thank you all for you time today and for your willingness to hear feedback from various stakeholders. We look forward to working with Mayor's Office, HPD and Council to implement and bring energy efficiency benefits to all housing.

NYSAFAH
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June 26, 2009

Testimony before the New York City Council
Environmental Protection Committee

Good morning, I am Kamila Kiszko, from the New York State Association for Affordable Housing. NYSAFAH is a statewide organization of developers and others involved in the financing and building of affordable housing. The bulk of our 300 members work throughout New York City's five boroughs and are collectively responsible for most of the housing built with city, state, or federal subsidies in NYC in recent years. It has been our pleasure to work with the City Council on many issues related to affordable housing development.

We strongly support measures to encourage the development of green buildings. Our membership includes some of the leading practitioners of sustainable building development nationally, and through our conferences and seminars we have worked to educate the entire affordable housing community on this important topic.

With that background, I would like to discuss our concerns with Intro. 967. We share the concern of many of our colleagues that the bill establishes an unfunded mandate for building owners, since the financing measures currently under discussion would be nowhere near enough to retrofit every eligible building. I would like to go further and explain how this bill would impose particular difficulties for affordable housing, by which I mean housing that was built or renovated under government subsidy programs with restrictions on incomes and rent or sales prices.

Over the past three decades, over three hundred thousand units of affordable housing have been built or preserved through New York City's housing programs. This may not have solved the housing crisis, but it has changed the lives of millions of people. While we are hard at work helping to bring Mayor Bloomberg's New Housing Marketplace plan to completion, many of us are working equally hard to manage and maintain the many units already built under this and previous initiatives.

When many of these buildings were completed in the 1980's and 1990's, sustainable building technologies were in their infancy. Certainly many building owners have done their best to upgrade and retrofit these buildings since then. But the financial situations of these buildings often leave little room to finance these improvements. Due to income-based rent restrictions, owners are not always able to get the full increases allowed under rent stabilization. Thus, over the years expenses have risen faster than rents, making it impossible to finance these improvements out of cash flow.

Further, these buildings typically carry multiple mortgages with high balances. Low interest rates keep them financially sound. But even if financing was available for retrofits, it would have to be subordinate to two or more existing mortgages and the combined balances might well exceed the value of the building. Under these circumstances, no responsible lender would be willing to make a loan to pay for the required energy improvements.

Even the J-51 tax abatement program would offer little help, since these buildings are already almost fully tax-abated.

In short, without access to cash flow, financing, or property tax abatements, owners would be extremely hard pressed to pay for the audits (which without government help can realistically can cost as much as $20,000 a building), much less the improvements themselves.

The bill does include an exception for financially distressed buildings, which includes buildings that participate in "a city-managed financial assistance program". However, from the bill it is impossible to determine what this means. A better solution would be to exempt all buildings that are receiving substantial government assistance, at least to the end of their regulatory periods. We would be happy to develop language for this exception.

Once again, on behalf of NYSAFAH, thank you for your continued support of affordable housing development. We look forward to continuing to work with you on this and other housing initiatives.

COMMON GROUND

505 Eighth Avenue
New York, NY 10018

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Good morning. My name is David Beer and I am the director of housing development for Common Ground Community, a New York City based non-profit dedicated to ending homelessness by transforming people, buildings, and communities. Common Ground is one of the nation's largest developers of housing for formerly homeless and low income individuals. The supportive housing we develop provides permanent housing coupled with on-site support services that help people maintain their housing, restore their health, and regain economic independence.

In New York City, Common Ground operates five supportive housing buildings, representing over 1500 units of affordable housing. In addition to our five existing buildings, we are currently developing four other supportive housing buildings throughout New York City, comprising over 600 units. As part of this holistic approach to renewing the health and well-being of individuals and communities, Common Ground is committed to making sustainability an integral part of our housing. To meet this goal, we are incorporating environmentally sustainable design, construction, operating, and maintenance practices throughout all of our buildings and seeking LEED certification in our new construction projects. Common Ground supports public policies that promote similar building practices in New York City and beyond. We applaud Mayor Bloomberg and Council Speaker Quinn in developing the Greener, Greater Buildings Plan.

Common Ground supports the policy goals of the four pieces of legislation within this plan because these local laws will have long term benefits for all New Yorkers. At Common Ground, our current building practices seek to make all our buildings more energy efficient while employing green design elements. Through our commitment to greening buildings, Common Ground hopes to help make sustainable design a mainstream practice in supportive housing. We are pleased that this legislation will enable energy efficiency to become mainstream practice throughout New York City, driving down costs for consumers and developers while reducing the greenhouse gas emissions throughout the City.

Given that we are a housing developer and operator of buildings larger than 50,000 square feet, these four pieces of legislation will impact Common Ground's buildings. More specifically, intro. number 967, could have significant upfront costs. We hope to work with you on ensuring that the Greener, Greater Buildings Loan Fund will be useful in financing such capital improvements for non-profit affordable housing developers. Additionally, Common Ground would like to join the conversation surrounding green workforce development training. We believe that this component of the plan is a great economic development tool that could certainly benefit those individuals who we work with on a daily basis. Again, we commend the Mayor and City Council for proposing this plan that improves the health of all New York's communities. Thank you.

Submitted by:

Common Ground Community

505 8th Ave, 15th Floor

NY, NY 10018
212-389-9300

Enterprise™

Testimony of Bomee Jung, Program Director
Enterprise Community Partners, Inc.

Environmental Protection Committee

(June 26, 2009)

Chairman Gennaro and members of the Committee: Thank you for the opportunity to testify on proposed intros no 476-A, 967, 973, and 564-A.

Enterprise is a national innovator in creating affordable homes and revitalizing communities. For 25 years, Enterprise has pioneered neighborhood solutions through public-private partnerships with financial institutions, governments, community organizations, for profit neighborhood developers and others that share our vision.

In 2004, working closely with the City's Department of Housing Preservation and Development (HPD), Enterprise launched its Billion Dollar Promise. The commitment we made was to invest $1 billion to develop 15,000 affordable homes in just five years – as much housing as we had created in our first fifteen years in New York City. We are happy to report that as of this past December, we have surpassed that goal and created 16,000 affordable homes for nearly 50,000 New Yorkers. Overall, Enterprise New York has invested over $2 billion to create or preserve affordable homes for roughly 100,000 New Yorkers.

The progress the City has made in the effort to create affordable homes and viable communities cannot be understated. On so many different levels, New York City is the national leader in addressing the needs of low-income people and fostering community improvement. We at Enterprise are honored to be part of that effort.

While proud of these achievements, Enterprise recognizes that counting production numbers is not sufficient. Since 2004, Enterprise has pursued an ambitious initiative to green affordable housing through the Enterprise Green Communities program. As part of a national program, Enterprise has invested $270 million in New York City to create more than 3000 green affordable homes for low-income New Yorkers. We also provide technical assistance to the City and State, and are proud to work in partnership with HPD, HDC, HFA and DHCR to create and implement a standard for affordable housing that is healthy, energy efficient, and environmentally sustainable.

Investments in the creation and maintenance of affordable housing may be one of the most effective vehicles through which we can pursue the goal of a more environmentally sustainable New York City. Building and rehabilitating affordable housing using green, energy-savings techniques is one of the best ways to address the simultaneous crunch of the current economic crisis: creating jobs and lowering the housing burden on those least able to shoulder rising utility and operating costs.

ENTERPRISE COMMUNITY PARTNERS, INC.
One Whitehall Street ▪ Eleventh Floor ▪ New York, NY 10004 ▪ 212.262.9575 ▪ www.enterprisecommunity.org

Enterprise

The impact of improving energy efficiency and making other improvements in the performance of affordable housing would create significant cost savings, health benefits and employment opportunities. Enterprise's experience through the Green Communities program indicates that new and existing properties that achieve 20 percent to 30 percent greater energy efficiency generate substantial cost savings from lower energy and water usage – hundreds of dollars per unit on an annual basis in many cases. These savings either accrue directly to low-income residents, or are reinvested back into properties by building owners, or both.

The proposed legislation under discussion today represents a bold and ambitious step toward improving the energy and environmental performance of New York City's buildings. These measures lay the foundations to improve the energy and carbon footprint of the nearly 22,000 buildings of over 50,000 square feet in the city - nearly half of the built square footage of the City. It is a grand vision, which, if implemented with transparency and prudence, promises to deliver benefits in energy efficiency and operating savings not only to these large buildings that are directly affected, but also to all New York City buildings by creating a large and vibrant market for retrofit products and services, establishing a common protocol for property managers to track and compare energy performance, and will lead to the creation of jobs focused on improving the energy and environmental performance of the built environment.

With the successful fruition of this vision in mind, Enterprise submits the following comments and requests for clarifications:

Provisions for Financially Vulnerable Buildings

It is our experience that some community-based owners of affordable housing face uniquely difficult circumstances due to the capacity and financial burdens brought on by the current economic downturn. Enterprise commends the authors of these bills in including provisions that will serve to mitigate any negative impacts on financially vulnerable buildings – specifically the exemption for TIL buildings and buildings participating in HPD programs from the definition of "city buildings", and the availability of extensions for financially distressed buildings. We urge the committee to preserve provisions in the bills' final form.

Int. No. 476-A Benchmarking Energy and Water Use Clarifications

Benchmarking energy and water use in existing buildings is an important step in property management. We request the committee consider a one-year extension on the administrative requirements of collecting the necessary information for benchmarking to July 1, 2011 for financially distressed buildings. As no specific source of financial support exists to fund administrative costs arising from benchmarking, this extension will allow the housing industry to create the appropriate aids to assist vulnerable buildings. I am happy to share that Enterprise is working on a solution to the challenge of financial support for this purpose.

Enterprise™

With respect to disclosure of performance metrics (Section 28-309.8), we request the addition of a clause that addresses public availability, not only of the outputs of the benchmarking tool, but also of the collected data through the authority of the agency best suited for the responsibility. Public access to such information will enhance independent analysis and assist in the development of additional support and solutions such as private retrofit funds.

Enterprise commends the authors of the bill in including the provision for direct upload. The ability to access the information for benchmarking directly from a utility company or other source would reduce significantly the administrative burdens associated with compliance.

Int. No. 967 Audits, Retro-commissioning, and Retrofits Bill Clarifications

Energy Audit is defined as that which conforms to a level II audit as defined by ASHRAE. In the interest of specificity and ease of use, we request clarification whether audits performed under the Multifamily Performance Program of NYSERDA and those performed under the Weatherization Assistance Program will meet this requirement. As 2009 saw the release of significant funds to WAP and through NYSERDA, consistency between those funding sources and the requirements of energy programs is critical. In the exceptions in section 28-302.8, Enterprise requests that the committee consider the explicit addition of buildings that have implemented energy efficiency measures as part of the Weatherization Assistance Program within 3 years of the filing of the energy efficiency report as exempt.

Enterprise urges the committee to further refine the definition to explicitly state that 'retro-commissioning' shall not be limited to services performed to any standard or practice called "commissioning" per se, but shall serve to mean measures that improve or optimize a buildings' energy performance and that are not RETROFIT MEASURES, nor be limited to those services performed by a professional who holds a certification or qualification for commissioning other than that which would qualify him/her as an ENERGY PROFESSIONAL as defined in the bill. The term "retro-commissioning" enjoys varying interpretations among building energy professionals, and some may interpret this provision to require measures that imply high cost services by certified commissioning agents, involving the review of design documents to infer the original design intent.

Similar to our comments on 476-A, Enterprise requests that the committee consider the addition of a provision that provides public access to the energy efficiency reports filed in compliance with this law to foster the transparent implementation of its provisions.

In conclusion, we look forward to working with you and the Mayor on the adoption and implementation of programs to provide a healthier, more energy efficient city for all New Yorkers. Enterprise is confident that the programs outlined in these bills will not only address our environmental needs, but also our immediate economic needs. We thank you for the commitment you have made to building and preserving affordable housing, and we urge you to continue and deepen this commitment. Thank you.

ENTERPRISE COMMUNITY PARTNERS, INC.
American City Building ▪ 10227 Wincopin Circle ▪ Columbia, MD 21044 ▪ 410.964.1230 ▪ www.enterprisecommunity.org

FOR THE RECORD

June 26, 2009

Chairman Gennaro:

My Name is Mary Fischer. I am the President of Georgetown Mews which is a 930 unit Cooperative Garden Complex in Kew Garden Hills in your Council district.

Through some very creative and successful long term financial planning, Georgetown Mews is one of the most financiallly successful cooperatives in New York City. We have been able to keep maintenance increases below an average of 2.5% over the past five years and we have been able to make over $10 million of capital improvements to the property without borrowing any money from the bank or imposing any assessments to the shareholders.

Over the next five years, we plan to install thermal insulated windows, upgrade our heating plant and install solar panels. If all goes as planned, we will be able to complete those improvements without additional loans or assessments. Georgetown Mews is very proud of what we have accomplished.

We are also very conscious of the environment. We have installed sub meters in an attempt to reduce electric consumption. In addition, the sub meters we installed help our staff to control the heat in the 930 apartments.

All of that being said, we have a long term financial plan in effect and cannot manufacture extra money to complete mandated and very expensive Green Projects. I have explained how financially successful my co-op is, but we cannot afford mandated improvements. If Georgetown Mews cannot afford these programs, how will the vast majority of other co-op's in New York City be able to afford these projects? While Georgetown Mews has been able to keep maintenance increases and assessments to a minimum, we are in the minority. Our accountant, attorney and managing agent have explained to us the most co-op's in New York City have experience maintenance increases over the past five years that exceed a total of 40%. Real Estate taxes and water charges have become unaffordable. Another important factor is that most co-op's have refinanced their mortgage in the past five years and, due to the terms of the standard commercial mortgage; these mortgages cannot be refinanced for at least five more years. Therefore, if the City mandates capital improvements, most co-op's will have no choice but to assess their shareholders to pay for the cost of the Green Projects. In this trying economic time, having to impose assessments for projects that are not absolutely necessary will be too much for most residents to afford.

Therefore I urge the Council to reconsider the law as it is proposed with mandates to be changed to a law that will give incentives such as J-51 to those buildings who have or will be implementing the change that you are suggesting.

I would welcome an opportunity to discuss this further with you. .

Testimony prepared by Gregory DiGiacomo

New York City Council Environmental Protection Committee

FOR THE RECORD

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

My name is Gregory DiGiacomo and I am native New Yorker. I was born in Manhattan, grew up in Queens and spent the latter half of my adolescence on Long Island. I am back in East Elmhurst, Queens pursuing a doctoral degree at the CUNY Graduate Center. I always wanted to live in New York City and now I am living that dream. To me New York represents progressive living at its best. As of the turn of century the majority of the planets population now lives in urban areas. As the biggest city in America, New York can lead the way for other large American cities by enacting progressive legislation, such as the Greener, Greater Buildings plan. City dwellers use far less resources than the average American and this plan would help us decrease our energy consumption even more. A very large percentage of New York's energy consumption is due to one of its most impressive features, the majestic skyline that has come to represent America's grandeur and industrious spirit. Imagine if that skyline also represented innovation and a lifestyle more in harmony with the natural world. If this legislation is passed it will help New York during these trying economic times by both creating jobs and saving money while also improving our quality of life. Through this and other initiatives the city would gain even more international appeal leading to a renewed influx of global talent, investment and tourism. New York may also set a precedent leading other American cities to enact environmentally friendly legislation, helping to fight global warming. I urge you to pass the Greener, Greater Buildings plan for New York's future.

Thanks.

Sincerely,

Gregory DiGiacomo

31-12 74th street

East Elmhurst, NY 11370

FOR THE RECORD

Testimony prepared by Tatianna Echevarria

New York City Council Environmental Protection Committee

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

Hello, my name is Tatianna Echevarria and I am President of ACTION, Activists Coming To Inform Our Neighborghood, which is a teen activist group based at The Point CDC.

The movement to "go green" is one that has swept America like a storm, with sayings on everything from t-shirts to bracelets, yet there is not much concrete evidence one can point to that demonstrates this movement is more than just a phase that is built on good ideas. I'd like to commend the city for breaking out of this idealistic phase and developing a plan that is progressive in both principle and practice by addressing the issue of climate change with such an aggressive agenda.

Coming from an area like the South Bronx, I have experienced first hand the negative effects of an unhealthy environment. While endless truck traffic, ever-going construction, and virtually toxic factories are not pleasant, the thing that troubles me most is the lack of effort to change any of it. As a city we have maintained a notoriously hands off approach in regards to the environment and have watched pockets of low-income community of color suffer through the harsh impacts of environmental decay. This plan comes as almost a literal breath of fresh air because it not only outlines steps to help alleviate environmental issues, it also signals that the city has finally realized that our environment is not something that is only relevant by zip code, and has committed to reversing the effects of a grim environmental past and preventing what could be a disastrous future.

The ultimate priority in this package of legislation is the future, and New York's environmental future is of particular concern to me because it is the city my generation will inherit. There is always reference to the idea that today's young people are tomorrow leaders, well on behalf of the young community I am urging our leaders of today to recognize that climate change is a pressing issue that must be addressed because the true ramifications of the environmental damage being done today will be felt by everyone tomorrow, but passing this package will move the city toward a greener, healthier existence and pave the way for an efficient yet healthy environmental future. Thank you.

FOR THE RECORD **Testimony prepared by Cristina Montesions**

New York City Council Environmental Protection Committee

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

My name is Cristina Montesinos, and I am currently a resident in New York City.

I am also very inclined to any type of green movement or ideas to make a more efficient city/world, with less impact on our precious earth. I do try to make all the daily correct choices and recycle anything that is possible, but as my roommate is good at pointing out, our impact is little; an individual is but a grain of sand in a huge beach and can hardly truly create change unless united in a mass. However, government has a much more broad hand in things and they can really help halt our old wasteful ways and get started on new ideas, new projects and a new greener path.

Because of your influence I would like to voice my support for the Greener, Greater Buildings plan. Right now in our current recession any new additional projects that would help get the workforce going, would be very beneficial. With this green plan, I understand, that it would create 19,000 construction related jobs, jobs that in turn would inject new cash flow in the economy and a new vision for our future. Also this plan will help New Yorkers, like me, save $750 millions in energy, something we should be focused on saving anyways because the more we save today, the more we will have in the future. The plan will also significantly reduce New York's carbon footprint by 5%. New York has always been a progressive and forward thinking city; this is what drives people to come live here, this is what brought me here. Lets be a good example to the rest of the country on initiating green projects that will not only save money, create jobs, but also help us become conscience of the limited natural resources that this earth has given us and we should not misuse, or use carelessly. I hope to hear that this pan has been approved.

Sincerely,

Cristina Montesinos - A New York Voter

172 E 106th St Apt 4C

New York, NY 10029

FOR THE RECORD **Testimony prepared by Barth Bazyluk**

New York City Council Environmental Protection Committee

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

My name is Barth Bazyluk and I have been a New Yorker for my entire life. I am a product of the City. I am a product of the public education system and that is where I discovered the benefits of a greener, more responsible society. It all began in elementary school (P.S. 87) where I was taught the importance of recycling. I remember this time period very clearly because I can picture it was during these years when my father, who is a superintendent and small business owner, had me help him post stickers and posters in our apartment building that showed wha t is to be recycled and what isn't. However, it was during my graduate studies at the University of Albany in my entrepreneurship class where I found the potential to do a lot of good for society and at the same time make a living off of it; I am talking about the green industry. The main assignment for that entrepreneurship class was to write a convincing business plan for a realistic and viable "feel good" business. I was fortunate to be a part of a very ambitious and intelligent team that opened my eyes to the green industry; something I had no idea about until I took this class.

We came up with a business that designed and installed green roofs. In our business plan we stressed the benefits of putting a green roof on a building for the client as well as the good it does to our Earth. Being green is good for the environment but it has to make economic sense. Green roofs are an expensive investment but that's exactly what they are, an investment in our future. Besides selling green roofs as feel-good thing, we showed how it made economic sense. We showed how green roofs help make the roof last longer, how it helps keep the house cool during the summer and warm during the winter resulting in a smaller energy bill and how they can use green roofs to grow their own vegetables. In our eyes, we saw this a win-win situation for all parties involved and through our extensive business plan and entertaining presentation, we won over a panel of judges that consisted of successful business owners and entrepreneurs and received first place in our graduate program for the best business plan.

Through this experience, along with my business background and my entrepreneurial roots, I saw the immense potential that the entire green industry

has for our society and our economy. Everyday more and more people lose their jobs and new struggles are created, especially in New York City where the finance industry has collapsed. I think the green industry can be a part of a long-term solution to today's numerous problems created from the emphasis on short-term results. We can start doing more to preserve our precious and finite environment and at the same time put people back to work through jobs that exist in the green industry.

There isn't just potential in green roofs but in sustainable construction and solar energy. These are all areas where we can easily train and educate people. Education is very important because the majority of people are not aware of the benefits of the green industry. One of the biggest challenges besides obtaining capital and financing is accepting that we need to change and we need to embrace that and run with it. Through the proposed "Greener and Greater Buildings" plan, we can help open the doors to the green industry here in New York City. There is already a budding interest in green construction in NYC but there needs to be more.

The "Greener and Greater Buildings" plan can be the catalyst that sets the city ablaze with more jobs, more financing for small businesses and more efficient buildings. This is exactly what NYC needs right now. The seeds have been placed but they need water. Entrepreneurs need the backing of the NYC government to help them gain access to funding. This proposed plan will help water those seeds to bring these ideas and businesses to life for the good of all.

Sincerely,

Barth Bazyluk

325 W. 77 Street, Apt 5B

New York, NY 10024

Testimony prepared by Beverly Solow

New York City Council Environmental Protection Committee

FOR THE RECORD

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

My name is Beverly Solow. I live in Inwood, full of wonderful parks in northern Manhattan and site of a year-round farmer's market which is the delight of the neighborhood. I work as a self-employed, board certified lactation consultant, but right now my spare time goes to educating myself and others about climate change. I have recently attended conferences at Columbia University and Hunter College (organized by the Municipal Arts Society). I have started a book club in Inwood about climate change, and we as a group are looking for ways to put our concerns into action. It is my hope to have a representative from NYSERDA come to Inwood to speak to co-op owners about energy audits and ways to make our buildings more energy efficient. I learned about that possibility from hearing Anne Pope speak about her organization, Sustainable Flatbush, at the conference at Hunter College.

Climate change dwarfs all other issues and it is a challenge like no other challenge which humans have ever faced. When have we ever been asked to look so far into the future and dramatically change our present, daily habits? When have the stakes been so high? Pacific Island nations will literally disappear. Millions of Africans will die from lack of food and water. The American Southwest may become a dust bowl. Closer to home, my son may choose not to have children because of the future he sees ahead of him. It is up to us, our communities and our governments to meet this challenge.

Obviously I disagree with both President Bushes (#41:"The American way of life not negotiable". #43 "The American way of life is a blessed one.") We must make changes. Many of those changes are smarter, better and cost-effective. The Greener, Greater Buildings Plan will foster continuing improvement of large buildings in New York City. It will reduce energy consumption, save money, create green jobs, decrease air pollution, and reduce New York City's carbon footprint. These changes make sense. Wasting energy makes no sense. Creating jobs will help our local economy.

In addition to the requirements of the legislation, I would also like to see more encouragement or incentives for buildings to incorporate wind turbines when feasible. I also recommend a greater emphasis in PlaNYC on horticultural infrastructure-- urban gardens/farms, wall gardens, roof-top gardens.

On June 2, 2009 WABC aired a show called Earth 2100, a fictional story about a girl born on 6/2/09 in a world in which the governments did not work together on climate change issues. The world in this story is grim. However, New York City was a beacon of hope. Officials had made wise choices. It was a sustainable city, with urban farming, electric cars, green buildings. I felt hope and pride when I saw my city in this story.

Thank you for this opportunity to comment--to voice my support for the Greener Greater Buildings Plan as a concerned citizen and voter.

Beverly Solow

65 Park Ter E, Apt 2B

New York, NY 10034

New York City Council Environmental Protection Committee Hearing on Proposed Green Building Legislation, June 26, 2009

Testimony of Nancy Biberman, Founder & President
Women's Housing & Economic Development Corporation (WHEDCo)

My name is Nancy Biberman. I am the founder and president of the Women's Housing & Economic Development Corporation. Since 1997, WHEDCo has worked with families in the South Bronx who struggle with the multiple challenges presented by poverty, and who, like all of us, aspire to a healthy, financially stable future. A large part of our work is building new green affordable housing, and retrofitting our flagship building for energy efficiency. WHEDCo has many interconnected roles in the community: we are service providers, tenant advocates, we're a landlord, developer, owner and property manager. As such, we read the "Greener, Greater Buildings Plan" with much interest. Depending on implementation, the plan could have a substantial impact on the city's carbon footprint. However we have several concerns regarding emphasis, enforcement and financing.

First I'd like to point out how retrofits should be directly related to affordability. The Rent Guidelines Board insists on using increased utilities rates as an excuse for raising the rents for thousands of families, many of whom can ill afford it - - they did it again this year, with another major rent hike. Given the gist of the Greener, Greater Buildings Plan, the City would seem to agree that this is no longer acceptable. The sustainable response to increasing energy costs is to improve efficiency, not raise rents. Right now, the much-needed repeal of the vacancy decontrol law is in jeopardy due to chaos in Albany. As the City is on the verge of passing major energy efficiency legislation, we urge the City to use the opportunity presented by promoting this plan to encourage state action that rejects rent increases and instead helps landlords improve energy efficiency in their buildings to bring costs down.

The City should directly leverage GREEN BUILDING LEGISLATION for long term affordability of the rental stock. Some, but not all, multifamily residential buildings with rent stabilized apartments are encompassed in the City's million-building plan. Our colleagues who are also testifying here today have identified these buildings. We recommend that the City use those large residential buildings with affordable rents as examples to show other landlords how they can benefit from a retrofit. Genuinely energy-efficient buildings hold the greatest promise for maintaining housing affordability and profitability, not to mention saving the planet. At WHEDCo's Urban Horizons, for example, our initial modest investments in weather stripping, and replacing lighting and appliances resulted in our tenants' electricity bills decreasing by 6.1%, even as average Con Ed bills increased 8.1%. We're now trying to raise $250,000 in capital to upgrade our boilers and install a combined heat and power system, which would save us $40,000 per year.

A few recommendations and concerns regarding the details of the legislation:

Require Flexibility and Training. Large-scale retrofits are costly and complex, requiring extensive project management resources. Each building is different. Those agencies implementing and enforcing the policies will need a measure of flexibility to successfully accomplish retrofits with landlords. In our experience, those implementing policy on the ground - whether for Department of Buildings, Finance, or other agencies – are not necessarily well versed in new legislation or regulations and can create unnecessary bureaucratic impediments to development and renovation. Specifically, successful implementation of the **New York City Energy Code and lighting bills** will require training Department of Building inspectors. Manufacturers and general contractors have become savvy at "green washing": promoting conventional products as 'green' or 'energy efficient.' Inspectors will need to know how to identify truly efficient products. We hope the plan's optimistic tone is followed by thorough, intensive training at the agency level.

Missing Piece: Ongoing Management. The plan is silent on the matter of property management. We have found that a retrofit will not continue to produce energy and water savings if the property managers are not on board. For example, when faucet aerators get clogged, the superintendents need to know that they can be cleaned and unclogged rather than thrown away. Property managers may be reluctant to stockpile compact fluorescent light bulbs, however they are necessary to prevent tenants from replacing broken bulbs with cheaper incandescent bulbs. Property managers also need to install and remove window unit air conditioners at the correct times of the year to prevent conditioned air leakage and excess energy use. In these cases and more, property managers need to be trained and in turn need to communicate with tenants for a retrofitted building to stay 'green.'

Provide Grants for Affordable Housing Landlords. The **Audits & Retrofits bill** could present problems for affordable housing operators who cannot obtain the capital needed for a retrofit. The City should create a specific program, perhaps through HPD, for affordable housing operators to comply with this law. The Green Building Financing stimulus money is a start, but it should be available as a **grant instead of a loan** for nonprofit landlords, and it should be set aside specifically for affordable housing operators complying with mandated retrofits

Expand Benchmarking. The City should be applauded for posting EPA Portfolio Manager Tool results online with tax assessment data. This will allow tenants and investors to compare buildings across the city. We urge the City to implement a similar requirement for multifamily residential buildings of 20+ units. As a first step, we recommend the City **urge Con Edison to make public the building-by-building data it already collects**. Multifamily buildings can be more complicated than large commercials buildings, however they are major polluters, and their level of efficiency has a direct impact on the monthly utilities bills for millions of renters. We recommend the City begin to tackle the need for multifamily retrofits by making data available, expanding benchmarking requirements to more residential buildings, and by publicly posting results.

Develop the Workforce. The program described in the plan does not specify a curriculum, nor does it identify where the curriculum will be taught and how it will be funded. The city has shown that it is open to developing a real green workforce plan, however we cannot overstate how important it is to **have a workforce development program up and running** as the overall plan is implemented. There is, in the field, a dearth of skilled property managers, superintendents, energy efficiency auditors and consultants to work with landlords to accomplish a retrofit. The City needs to fund training programs in building sciences and math, in high schools and for young adults, and for current supers and property managers. There is a major learning curve in greening existing buildings among all parties, including developers and contractors.

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New York City Council Hearing on Intro Nos 476-A, 967, 973, 654-A
June 26, 2009

Joint Testimony of:
ACORN, the Association for Neighborhood and Housing Development (ANHD), the Center for Working Families, Housing Here and Now, the Legal Aid Society, Legal Services NYC, Make the Road New York, and the NY State Tenants & Neighbors Coalition (Tenants & Neighbors)

This testimony is presented by ad hoc coalition that has formed to explore the potential impact of the proposed legislation on tenants' rights and affordable housing. This coalition is comprised of the following organizations: ACORN, the Association for Neighborhood and Housing Development (ANHD), the Center for Working Families, Housing Here and Now, the Legal Aid Society, Legal Services NYC, Make the Road New York, and the NY State Tenants & Neighbors Coalition (Tenants & Neighbors).

Thank you for the opportunity to comment on the proposed legislation. While our coalition commends the New York City Council for this initiative, which we believe would reduce the impact that the city's buildings have on the natural environment and help to make our homes and communities healthier, we have a number of concerns about how Intro 967, the bill relating to energy audits, retro-commissioning, and retrofits, might negatively impact tenants and affordable housing preservation in New York City, and we cannot support the bill until these issues are adequately addressed.

Our concerns about the bill are as follows:

1) The bill could result in rent increases for rent stabilized tenants

MCI Rent Increases
The proposed legislation would affect over 375,000 rent stabilized units. In buildings that are covered by rent stabilization, under Section 2522.4 (a)(2)(i) of the Rent Stabilization Code, the owner could pass many of the costs of the required energy efficiency upgrades off to tenants in the form of Major Capital Improvement (MCI) rent increases. MCI increases are permanent rent increases, not temporary surcharges, of 1/84 of the cost of the improvements. This means that tenants in these 375,000 apartments would not only end up shouldering much of the cost of the required upgrades, they would also continue to pay even after the investment has been paid off which, under this legislation, would be no more than seven years after the initial investment. This is unfair because it means that the tenants will continue to pay for a "cost" that will allow the owner to reduce its operating costs; to be fair under the Rent Stabilization system, tenants should have their rents lowered as landlords' costs are reduced, not the opposite. We also oppose the increase from 5 to 7 years because this will dramatically increase the costs associated with these mandates.

Discretionary Rent Increases
There is also another provision of the Rent Stabilization Code (Section 2522.4 (a)(2) (iii)) that allows owners to apply to increase the legal regulated rent when there has been in increase in service or improvement, other than repairs, on a building-wide basis, which the owner can

demonstrate are necessary in order to comply with a specific requirement of the law. A number of the improvements that Int. 967 would require could fall under this category, and, similar to the MCI rent increases discussed above, rents could be raised by 1/84 of the cost of the improvements.

These MCI and/or discretionary increases could pose significant financial hardship for many rent regulated tenants; the average household income of rent regulated tenants is only about $35,000 per year, and forty three percent of rent-stabilized tenants have incomes within 200 percent of the federal poverty level. Many rent regulated tenants already pay a very significant percentage of their income in rent. Many tenants are facing even greater economic hardship than usual after the high rent increases passed by the RGB in 2008 and 2009, which included a "longevity tax" on tenants who have lived in their apartments six years or longer and whose rent is under $2,000 per month. Additionally, these likely MCI increases will also bring more of the city's rent regulated units that much closer to the $2,000 threshold at which they can be decontrolled and taken out of the affordable housing stock.

2) ***The bill could result in rent increases for Mitchell Lama tenants***

The proposed legislation could also have a negative impact on low and middle income tenants living in state subsidized Mitchell Lama buildings. In the Mitchell Lama program, owners can apply for rent increases when the operating costs of the building increase. We are in discussions with HPD to mitigate this problem. HPD is looking into making these temporary not permanent increases. HPD expects that the Green Buildings initiative will lead to lower operating costs for Mitchell Lama buildings which will result in lower rent increases for Mitchell Lama residents over time. HPD committed to discussing this issue with the DHCR. We remain concerned about the level of these potential surcharges since Mitchell Lama tenants have a median income of only $22,500 per year and can ill-afford even temporary surcharges.

Recommendations:

The ideal scenario would be for buildings with rent regulated units to be exempted from this legislation until a change can be made to legislation at the state level ensuring that the costs cannot be passed off to tenants.

Short of this, we strongly urge the following:

- An advisory opinion from the DHCR that: 1) clarifies which of the improvements the bill would mandate would qualify for an MCI increase and which would not; 2) confirming statements DHCR officials are reported to have allegedly made that 95% or more of the improvements this legislation would mandate would not qualify for MCI increases, either because they would be classified as repairs or because the upgrade would be made before the end of the useful life of the item.

- An advisory opinion from the regulatory agencies that oversee Mitchell Lama housing that states that the improvements the bill would mandate would be a temporary not permanent and that the decreased operating expenses over time would result in lower rent increases going forward. We will continue to work with HPD on this issue.

- A written commitment from the Mayor to submit a program bill to Albany to modify the Rent Stabilization Law to make it clear that items with a seven year payback are not subject to MCIs.

- Adequate funding/financing made available for owners to do this work. This would ideally be a loan program for for-profit owners and a grant program for tenant-endorsed preservation partners. A stipulation of receiving public financing or grant funding for the work associated with this proposed legislation would be that the owner could not apply to the DHCR for an MCI increase or any other rent increase the DHCR may be authorized to grant for the work.

- A written commitment from the Mayor that the Rent Guidelines Board will not consider the expenses associated with the changes this bill would mandate as part of the Price Index of Operating Costs.

- Indemnification of the affected households who have incomes below 50% of the Area Median Income and are paying more than 30% of their income in rent.

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Testimony before the City Council on Mayor Bloomberg's Proposed "Greener, Greater Buildings Plan," Friday, June 26, 2009

Thanks for the opportunity to speak today. I am a coop owner, a concerned citizen, and a mother interested in greener buildings, cleaner air and a cooler planet, for all of us, especially our children and future generations.

The three points I would like to get across today are the following:

1) **Climate change demands that we implement the Greener, Greater Buildings Plan as quickly and efficiently as possible.**

2) **Currently, it is too difficult for consumers to get the information they need about how to green their buildings**

3) **If the Greener, Greater Buildings Plan is going to be implemented on a massive scale, there needs to be a drastic overhauling of the way information is communicated to the public. This would include a) better coordination between NYSERDA, the Mayor's Office, and the City of New York, b) better information about the companies offering services to consumers, c) more user-friendly web navigation on relevant websites, d) the hiring of knowledgeable staff in the Mayor's office to help direct consumers to the resources they need, and e) better public education.**

About my background: I have a Master's degree in Urban and Environmental Policy from Tufts University and am a published author. My book, *Lethal Laws*, dealt with the public health effects of chemical pollution.
I have two children, ages 5 and 8, and my 5-year-old son has asthma, so I'm particularly concerned about the quality of New York's air, like the thick black smoke I see coming out of apartment building chimneys all over the City - the result of improperly maintained or outdated boiler systems, many of which run on oil.

FOR THE RECORD

Statement in Support of
GREENER, GREATER BUILDINGS PLAN
New York, New York
Friday, June 26, 2009 Hearings at City Hall
Carol Jackson, Supportive and Low-Income Housing Consultant

I am self-employed and work for non-profit sponsors and developers of low-income housing during pre-development, design and construction phases as project manager. I have wanted to alleviate homelessness in New York City for three decades now. I have never been as optimistic as I am at present, partly due to the opportunity we have, going forward, of assisting the environment as we improve permanent housing for people with special needs and lower incomes. My experience is that the more energy-efficient and green-built our houses become, the more affordable they will be to housing-needy tenants who must rent.

Three energy-related things I have learned over the last few years as a result of working intensely in the new-construction and rehabilitation of low-income housing:

1) Green technology is all around, waiting for discoverers. In some cases it volunteers, or at least suggests itself. Just visit the tallest building you can find and look around. Or, do an energy audit of a low-performing building.

a. I see: roofs needing more trees and plants to safely sequester CO2, so I studied six existing residences for which I had served as project manager. Every building had been completed within the last 9 years, but only two have roofs capable of bearing 30 lbs of live load required for adding a low-profile green roof. Two of the other three, however, have a possibility of installing green walls along windowless portions of property line. I am now asking the architects and engineers I know for effective green wall design proposals.

b. In one of these existing residences, heating costs were extremely high. The facility manager contacted my favorite engineer, who had not designed the systems in spite of my request to the sponsors; my engineer added a device that staggers boiler engagement. This 118-unit building houses low-income and special-needs families; the heating bill decreased by $4,000 a month.

c. At a new-construction site meeting we had the insight that any unused air conditioning sleeves in the bedrooms should be insulated against heat and cooling loss. This housing sponsor provides an a. c. unit for the living room sleeve only, and tenants who cannot afford machines in their bedroom sleeves will be provided with insulation and interior capping of the sleeves in winter—at all of the sponsor's apartment buildings from now on.

2) My second observation is that attempts are, and should be more intensely, directed at, coordinating financing and funding incentives for retrofitting and new-building green and energy efficient systems.

a. I am presently working on a retrofit with a very experienced environmental consultant. The energy audit revealed shocking deficiencies in the design of every mechanical system. The existing structure is only five years old, but needs various weatherizations as well as installation of photovoltaic panels on the roof—an infrastructure we anticipated but could not afford to install

during construction—to reduce the program's high electric bill. Without this 'environmental partner' (or consultant), it would be almost impossible to acquire all the economic incentives available from NYSERDA's Multifamily Performance Program, the federal HUD Green Retrofit Program, the New York State Weatherization Assistance Program, and other agencies that assist sponsors with capital financing of efficiency improvements.

b. Another recent experience I had involves installing a ground source ('geothermal') heating and cooling system in a new-construction and landmark restoration project (95 apartments surrounding an existing central building) that cannot be visibly "modernized": There were three compatible (non-double-dipping) energy efficiency and LEED/green building funding sources we had to involve to afford the up-front capital, especially the drilling of four deep wells. It could have been simpler, and I believe that the proposed legislation will make it easier. For sure, the sponsor of that landmark project will be encouraging invention of more 'invisible' energy savers. They are looking for a way to run their geothermal well pumps off self-generated renewable electricity that will make them 100% fossil-fuel-free. And, they are looking to set up an incentive program to help tenants purchase electricity from wind or solar sources.

3) I believe that the cost of operating low-income housing can be reduced by doing green and energy-saving improvements. In the field I know, there is a big need to serve families with incomes below 60% of Area Median Income (AMI). The 60% AMI requirement eliminates too many renters in New York City from eligibility for "low-income" housing, since 30% of their incomes will not support the sponsor-owner's property management, maintenance and mortgage costs. If the maintenance costs were reduced marginally (while we are saving the environment at the same time), we could afford to house lower income groups as well, and the federal low-income housing tax credit program might be revised to serve families at, say, 50% AMI. New York agencies have done a great job of providing low-income rental housing to people with incomes at 60% AMI. Housing for lower income groups must now be addressed; energy-saving, green-building, and water-conserving maintenance practices will help address the need.

The six proposed Greener, Greater Building codes will effect these positive changes:

1. Architects and engineers who specialize in, or upgrade their knowledge of, energy efficient and green technologies will be more numerous. Sponsor-owners and tenants will get better, more sustainable buildings as a result.
2. Although most of the proposed codes apply to buildings 50,000 square feet and over, sponsor-owners of all existing buildings will be encouraged to make improvements—by reports of the savings achieved and from competition-related forces. Most will want to do the lighting upgrades, energy and water consumption benchmarking, energy audits, systems retrofits and related training of operating staff in the upkeep of the energy efficient equipment.
3. Property management and building operators will get training in the more efficient equipment and green materials; they will spread the knowledge and new skills.

FOR THE RECORD

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Testimony of Robert F. Fox, Jr. to the New York City Council
Environmental Protection Committee Hearing
June 26, 2009

My name is Bob Fox and I am a Partner at Cook+Fox Architects in Manhattan. We are the architects for the new, 2.2 million square foot Bank of America Tower at One Bryant Park as well as many other green buildings of all scales. I have been a practicing architect in New York City for over 40 years, and currently serve as a member of the Sustainability Advisory Board for Mayor Bloomberg's Office of Long Term Planning and Sustainability.

I would like to commend the City Council Environmental Protection Committee on its leadership in producing the four landmark bills proposed here today:

- Int. No. 967, Article 308: Audits, Retro-commissioning, and Retrofits of Building Systems
- Int. No. 476-A, Article 309: Benchmarking Energy and Water Use
- Int. No. 973, Article 310: Required Upgrade of Lighting Systems
- Proposed Int. No. 564-A, Article 1001: Enactment and Update of the New York City Energy Code

If enacted together, these bills represent a meaningful package of local legislation that will have far-reaching impacts on New York City's economy, as well as on the future health and well-being of its citizens. As a city in which 79% of total annual greenhouse gas emissions come from buildings, we can no longer ignore the reality that the vast majority of our building stock is composed of aging, inefficient buildings – many built before the state energy code was instituted in the late 1970s. Of the approximately one million buildings in the city, just 22,000 structures account for 45% of building-sector energy use. By targeting buildings of 50,000 gross square feet and greater, the proposed bills will be an effective means of lowering carbon emissions and raising building performance to a level required by a globally competitive, 21st century city.

As an architect for green buildings, I am well aware that new green projects tend to generate the most public interest and visibility. However, every good architect knows that existing buildings are the key to real progress in fighting climate change and protecting our air, water, and land for future generations. The upgrades and retrofits that we need so urgently will also result in the immediate creation of good, local jobs at many skill levels, just as jobs in new construction are being lost at an unfortunately high rate. These retrofit projects are a real source of construction activity and added value. For example, my firm recently completed a full renovation of a 150,000 square foot, pre-War building on Lafayette Street in SoHo. Not only is the building fully leased, due in part to measures to save energy and water and improve the indoor environment, it is now on track to receive LEED Gold certification from the US Green Building Council.

We have already seen the New York City government and several local colleges and universities step forward to set targets for their buildings that exceed the goal of PlaNYC, to reduce carbon emissions

30% by 2030. This leadership is not only admirable, it is also a prudent and pragmatic response: the cost of energy is increasing steadily, even in the current recession. Furthermore, there is little question that Congress will enact some form of federal legislation on clean energy and energy security; by acting now to reduce energy consumption, New York City can stay ahead of future energy trends, whether market- or policy-driven.

While some in the real estate community have taken issue with the reporting and retrofitting requirements outlined in these bills, building owners should recognize that greater energy efficiency is a win-win proposal. No measures have been proposed that would carry an average payback of longer than five years. The increased long-term building value, in dollars of rent per square foot, is a real benefit to be gained by buildings owners from the short-term investment that is being asked of them. In response to concerns that tenants, not owners, will reap the direct benefits of energy savings, market-based instruments such as green leases already exist, and can be fully developed to sensibly align incentives.

While I firmly support the passage of these four local laws, I feel the following changes would strengthen the effectiveness of this legislation:

- Buildings should implement measures, identified through the independent auditing process, that pay for themselves in seven years or less, a reasonable length of time for improvements that produce long-term benefits.
- Building improvements should be "bundled" so that each building implements a program of improvements with an average payback of seven years. This allows the "easiest" measures to offset those with higher capital costs and larger impacts on energy savings.
- Lighting retrofits should be required for all buildings, not just those over 50,000 GSF. Most existing buildings have not yet taken advantage of major improvements in lighting technology that have been made in the last two decades, and lighting retrofits are among the most cost-effective improvements that can be made to any building.

As leaders in the New York City real estate community – including The Durst Organization, Bank of America, the Battery Park City Authority, and Goldman Sachs – have demonstrated, green buildings are not only good business; they also set a much-needed new standard for the urban environment. The City Council is charged with protecting the health and well-being of New Yorkers and promoting the greater good, for our economy as well as our environment. For our city to continue to compete globally, we need to exhibit clear thinking and a vision that anticipates the social, environmental, and economic challenges of a low-carbon economy. Reducing major inefficiencies in our buildings' use of energy will help keep the cost of living and doing business in New York City under control, which benefits all New Yorkers.

Sincerely,

Robert F. Fox, Jr.
Partner, Cook+Fox Architects

TERRAPIN
BRIGHT GREEN

FOR THE RECORD

26 June 2009

Councilman Jim Gennaro
Committee on Environmental Protection
The City Council of New York
New York, New York 10007

Dear Mr. Gennaro,

Good morning. I am Chris Garvin, a Senior Associate at Cook+Fox Architects, a Partner at Terrapin Bright Green—a strategic environmental consulting company in NY—and a board member of the Urban Green Council, the New York Chapter of the USGBC. Thank you for the opportunity to express my strong support of the suite of Green Building bills being discussed here today: # 476A Benchmarking, #973 Lighting Upgrades, #564 NYC Energy Code and #967 Audits and Retrofits.

These four bills are essential to the success of PlaNYC, and if enacted will achieve an impressive 5% reduction in greenhouse gas emissions – a significant step toward the goal of reducing emissions 30% by 2030. We need to eliminate needless energy waste and inefficiency in order to keep New York competitive with major world cities and to make sure our city is a healthy place to live. More immediately, these bills will spur economic development and the creation of new green jobs for thousands of New Yorkers – a critical need in these difficult times.

While carbon legislation is mired in federal discussions and a new Kyoto Protocol is far from certain, New York City can take action now to cut emissions and eliminate waste. The City Council's action is a testament to the ability of local leaders to make progress in addressing the most important issue of the 21st century – climate change.

While these bills, as a group, are very powerful, they can be and should be improved. In my professional experience, I have learned that we need to demand more of our existing building stock. Our buildings are a vital part of our economic capacity, have major impacts on occupant health and worker productivity, and are a worldwide symbol of our city. The bills under consideration should be passed with the following two changes:

1) Bundle measures with an average 7 year payback. The real estate industry has shown time and time again its ability to capitalize on opportunities in the marketplace. The requirements for existing buildings are no different and I am confident that the industry will identify new technologies, control systems, green leases, and other physical and financial tools to prosper and thrive within the requirements of this legislation.

2) Make lighting upgrades mandatory for ALL buildings. This is truly 'low hanging fruit' for all the citizens of NYC. Advances in lighting technology provide a multitude of options for building owners and tenants, and these measures often pay for themselves in less than two years.

The citizens of New York City deserve to benefit from bills that will create real energy savings, create jobs, and improve the health and productivity of everyone who lives or works here. I urge you to pass these four bills as soon as possible so that we can get to work on improving our city.

Thank you for your time.

Sincerely,

Chris Garvin, AIA

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WE ACT COMMENTS ON LEGISLATION SUPPORTING THE NEW YORK CITY GREENER, GREATER BUILDINGS PLAN

BEFORE THE NEW YORK CITY COUNCIL COMMITTEE ON ENVIRONMENTAL PROTECTION
June 26, 2009

Testimony of Anhthu Hoang for WE ACT for Environmental Justice

WE ACT thanks Chairman Genarro and members of the Environmental Protection Committee for providing much needed action on climate change, the most important environmental issue of our time. WE ACT thanks also Mayor Bloomberg for providing strong leadership in developing the New York City Greener, Greater Buildings Plan and the suite of legislation before the Committee today. WE ACT, of course, supports the City's commitment to increase energy efficiency as part of an overall strategy to reduce NYC's carbon footprint. WE ACT agrees that energy conservation and efficiency must play a key role in any attempt to roll back the advance of global warming and the climate crisis it sets in motion.

As you know, the International Panel on Climate Change (IPCC) and the New York City Panel on Climate (NYCPCC) both predict dire consequences to NYC of global rising temperatures. Most relevant to today's discussion is the City's energy consumption, especially the increased demand for electricity (and other energy sources) for cooling that will result from the intensified warming in the City due to the urban heat island effect. Our current electricity generation infrastructure is already too often overwhelmed by demand during the summer months, especially when we have long stretches of warm temperatures. In 2003, high ambient temperatures and resulting increased demand were blamed for the blackout that eventually affected all of the northeastern United States. As late as 2006, high demand caused 174,000 people in Queens to be without power, many for over one week, and tens of millions of dollars in property damage and business losses. The burden of the event was most borne by low-income seniors, small children, and infirmed members of these communities.

As terrible as a blackout is for those who must suffer through it, increased electricity demand has an even darker impact on environmental justice communities throughout the City. Power companies are required to operate their best equipment, most well-maintained and permitted facilities during periods of normal use to meet the base load demand. However, during times of high demand, they are allowed to operate peaker plants, so called because they are only used during peak use periods when the demand is higher than the capacity of the base load plants. Peaker plants have the oldest, most polluting equipment and they use the dirtiest fuels. Unfortunately, these plants are also overwhelmingly found in low-income communities of color such as Sunset Park in Brooklyn and the South Bronx. The operation of the peakers has been documented time and again to contribute to the high incidence of respiratory diseases (especially asthma) and other environmental health problems that plague environmental justice neighborhoods.

Electricity generation is not the only source of pollution in environmental justice communities; the use of old, poorly maintained equipment and dirty fuels building heating systems is also a major contributor to our dire health problems. Add to the mix a decrepit, inefficient building stock along with a dearth of green spaces, and you have the makings of a very toxic environment. The suite of legislation before you would significantly reduce these problems. In addition, the actions taken herein will help spur economic growth by creating the need for trained building maintenance and other professionals who would be needed to perform renovations that meet the requirements of the energy

code, the assessment and reporting necessary for benchmarking, lighting upgrade work, and energy audits. We hope that the City will make the necessary effort to ensure that potential entrepreneurs and prospective trainees would be reached out to and educate about the availability of both jobs and training programs. We also recommend that the City prioritize environmental justice communities for outreach and training efforts. Doing so would serve the objectives of increasing compliance with the new energy efficiency laws, provide much needed clean air benefits to Northern Manhattan neighborhoods, and providing Northern Manhattan workers with the skills they need to participate in New York City's green economy instead of a entering the endless cycle of poverty. .

Energy Code Bill (Intro 0564-A)

Benefits – The energy code revision would require all renovations requiring systems replacement to use energy efficient equipment, closing the loop-hole in the New York State energy code that has allowed building owners to make piecemeal changes in order to escape the efficiency standards. This strategy has saved landlords money while continuing the use of polluting equipment and perpetuating the air pollution-related diseases in our neighborhoods.

The energy code revision would increase the City's energy efficiency and reduce our carbon footprint without working an economic burden on building owners, because it does not compel replacement of equipment. The new law only requires the use of energy efficient options when buildings had already decided to make these changes.

Environmental Justice Concerns – In its current form the proposed energy code does not specify the enforcement mechanism that would ensure compliance with the new rule. We would like to see more specificity on this front and a commitment on the part of the City to allocate appropriate resources in order to ensure compliance.

Benchmarking Bill (Intro 0476-A)

Benefits – Benchmarking would allow building owners and managers to assess and compare building energy performance. This is an effective tool that would enable owner as well as prospective purchasers and tenants to evaluate the relative costs of owning and operating a building. The assessment and evaluation are basic steps developing a plan to increase a building's energy efficiency. The City's aim to make the information publicly available also makes this tool convenient to real estate consumers.

Environmental Justice Concerns – The bill as written only requires owners and operators to benchmark their energy consumption if their properties are 50,000 square feet or larger in size. While such buildings are found throughout the five boroughs, they are most concentrated in Manhattan south of 96th Street. On the other hand, most of Northern Manhattan's energy inefficient housing stock is comprised of smaller buildings, and the financial hardship exemption would allow many larger building owners to escape the benchmarking requirement. This means that the benefits of energy efficiency and associated pollution and financial savings would not be maximized for Northern Manhattan. We hope that the City would identify mechanisms to resolve this potential problem. For example, the City could prioritize environmental justice communities in the financing program and/or require stricter scrutiny for exemption applications from owners of buildings in environmental justice neighborhoods.

Lighting Upgrade Bill (Intro 0973)

Benefits – Lighting is responsible for 20% of energy usage in buildings, and about 20 % of a building's carbon emissions. Therefore, requiring the upgrading of building lighting system to meet the new energy code would make a significant contribution to the City's carbon reduction goals. Moreover, because of the relatively short payback periods, these measures could provide substantial economic benefits for building owners and operators. With the recent developments in lighting technology, installing energy efficient lighting systems does not compromise service quality or aesthetics.

Environmental Justice Concerns – The upgrade requirements in the bill only apply to buildings of 50,000 square feet or larger size. We have the same concerns stated above in our response to the benchmarking legislation. We the City will take appropriate steps to remedy this potential inequality.

Audits and Retrofits (Intro 0967)

Benefits – Under this bill, large buildings (those of 50,000 square feet or larger in size) would have to undergo energy audit usage and efficiency every 10 years and perform necessary retrofits to meet the new energy code. These large buildings represent only 2% of the city's total buildings, yet they are responsible for roughly half the total city's square footage and energy consumption. By requiring the audits and retrofits, the City's action would significant reduce energy consumption and potentially force efficiency-focused technology that would in turn reduce demand for energy.

Environmental Justice Concerns – Under current state rules and regulations per the NYS Department of Housing and Community Revitalization (DHCR), some energy efficiency improvements could be eligible for Major Capital Improvement (MCI) rent increases for rent stabilized tenants. While the City has made clear that it seems an exemption for energy saving measures, we would like the legislation to directly address the issue in order to ensure that low- and middle-income residents from all over the City, especially those in environmental justice communities are not punished in achieving the energy efficiency goals.

COMMUNITY ENVIRONMENTAL CENTER

A Not-for-Profit Professional Organization

Community Environmental Center's Position Statement on New York City's Greener, Greater Buildings Plan

June 2009

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Executive Summary

Founded in 1994, Community Environmental Center (CEC) is the largest nonprofit energy-conservation organization in New York State and is also the leading state-issued contractor for the weatherization assistance services. In fact, the New York State's Weatherization Assistance Program recently awarded CEC $15.5 million to put into practice the goals of President Obama's stimulus bill.

CEC's support and enthusiasm for Mayor Bloomberg and the City Council's Greener, Greater Buildings Plan (GGBP) cannot be overstated. The benchmarking (Intro 476-A) and audits and retrofits (Intro 967) legislation will successfully mitigate a number of social, economic and environmental imperatives. We commend the Mayor and the City Council for introducing this legislation.

Requiring large buildings to undergo energy efficiency audits will tap into an existing specialized labor force of highly trained energy efficiency engineers. Moreover, mandating the installation of energy efficiency measures identified in the energy audit will create thousands of new well paying jobs for a low-skilled workforce, strengthening the city's middle class.

CEC has witnessed a rapid expansion of the weatherization industry. An unprecedented number of people are interested in receiving the required training to gain employment in this business. As such, we are convinced that when the GGBP becomes law the energy efficiency industry will successfully respond to meet the new demand in weatherization services.

While the importance of workforce development cannot be overlooked, especially during our economic climate, the environmental benefits that the city will experience as a consequence of this legislative energy efficiency suite must also be recognized. In the long-run, reducing greenhouse gas emissions is perhaps the most significant aspect of the GGBP. Requiring large buildings to reduce their energy consumption is a well-intentioned effort to address global warming, one of humanities greatest collective challenges.

However, CEC is concerned that several components of the GGPB compromise its effectiveness in thwarting climate change. First, limiting energy efficiency measures to those with a 7-year payback will not result in significant energy savings; second, there is no discussion in the GGBP of how it will ensure compliance; finally, full participation does not occur until 2022. The current plan will result in a missed opportunity to meaningfully combat global warming.

CEC's 15 years of experience in the energy efficiency industry has positioned us to identify two recommendations the GGBP should adopt in order to more effectively achieve its objectives.

First, the Mayor and the City Council must appropriate the proper funding and administrative authority to ensure programmatic quality control, discussed in more detail below. Second, greater incentives should be provided to encourage early adapters and also the installation of energy efficiency measures that realize deeper energy savings – particularly for very low-performing buildings. We offer several strategies to successfully achieve these recommendations.

I. Appropriate Proper Funding and Administrative Authority to Ensure Programmatic Quality Control

CEC's experience demonstrates that weatherization is a complicated undertaking that demands complex analysis and rigorous oversight. The following strategies are required to ensure that audits are accurate and that energy efficiency measures are properly installed, managed and maintained. Strategies to achieve this recommendation include:

(a) Utilize the benchmarking component of the GGBP to ensure that projected energy efficiency savings are achieved;
(b) Develop a system to monitor accurate benchmarking of utility consumption;
(c) Ensure adequate audits by developing an annual technical review process of randomly selected audits. Auditors that fail to comply with industry standards should be penalized by being suspended from doing audits;
(d) Provide technical support and training to participating buildings that do not achieve projected energy savings.

II. Create Greater Incentives that Encourage Early Adapters & Deeper Energy Savings

This recommendation achieves several goals. It encourages building owners selected to comply with the GGBP to install energy efficiency measures as soon as possible and also promotes early adoption. Finally, it rewards owners who implement energy efficiency measures that achieve deeper energy savings than the GGBP requires. Strategies to achieve this recommendation include:

(a) Utilize current Stimulus Funds to subsidize comprehensive energy efficiency measures in very low-performing buildings;
(b) Allocate additional Stimulus or City Funds for the purpose of subsidizing more comprehensive energy efficiency measures for early adopters;
(c) Develop an incentive for owners that work with the Weatherization Assistance Program, the Multifamily Assistance Program or Utility Programs
(d) Require 20 percent of eligible buildings to comply with the program annually.

In summary, CEC's position on the GGBP is that adopting these recommendations will result in a greater reduction of greenhouse gas emissions and more effectively mitigate climate change.

We are enthusiastic and supportive of the proposed energy efficiency legislation and look forward to working with the Mayor and the City Council to ensure the continued improvement of this exciting and much needed energy efficiency legislation.

Introduction

About Community Environmental Center

Founded in 1994, Community Environmental Center's (CEC) mission is to improve energy efficiency in residential buildings, helping people and the environment. CEC was created to address the high utility bills in low- and middle-income communities by helping to make buildings in these areas more efficient.

Today, CEC is the largest nonprofit energy-conservation organization in New York State and is also the leading state-issued contractor for the weatherization assistance services. In fact, CEC is excited to announce that New York State's Weatherization Assistance Program recently awarded CEC $15.5 million to put into practice the goals of President Obama's stimulus bill.

CEC has also become a major provider of market-rate green building consulting and technical services. CEC produces manuals to help organizations green their operations. CEC also provides LEED certification advice to both new construction and building rehabilitation projects.

In terms of the human impact, CEC has helped over 300,000 people save more then $270 million in utility costs. Concerning the environmental impact, CEC has worked on over 100,000 apartments and homes, resulting in the prevention of over 750,000 tons of carbon dioxide emissions.

Support for Greener, Greater Building Plan

CEC's support and enthusiasm for Mayor Bloomberg and the City Council's Greener, Greater Buildings Plan (GGBP) cannot be overstated. The benchmarking (Intro 476-A) and audits and retrofits (Intro 967) legislation will successfully mitigate a number of social, economic and environmental imperatives. We commend the Mayor and the City Council for introducing this forward thinking and deeply needed legislation.

Regarding the social benefits of the GGBP, requiring large buildings to undergo energy efficiency audits will tap into an existing specialized labor force of highly trained energy efficiency engineers. More people than we have previously observed are receiving the required credentials to work in this field. As such, GGBP not only supports this existing labor force but also further promotes its continued expansion.

Moreover, mandating the installation of energy efficiency measures identified in the energy audit will create thousands of new well paying jobs for a low-skilled workforce, thus helping to strengthen the city's middle class. Like many construction jobs, in addition to offering living wages and good benefits they also provide the opportunity for professional advancement. The rapid erosion of New York's manufacturing sector and the expanding service and information sector industries underscores the importance of creating jobs that support and contribute to New York City's middle-class.

While the importance of workforce development cannot be overlooked, especially during our economic climate, the environmental benefits that the city will experience as a consequence of this legislative energy efficiency suite must also be recognized. Despite the widespread understanding of climate-change as a real threat to global sustainability, there have been few positive steps taken towards substantially mitigation carbon emissions on a large scale.

CEC also commends the Mayor and the City Council for utilizing free market principles as a strategy to encourage energy efficiency and ultimately to advance environmental stewardship. All things being equal, higher performing buildings will command a greater value. Consequently, requiring building-owners to make energy and water consumption data publicly available through benchmarking will encourage the implementation of energy efficient systems. Simply put, a buyer, having the knowledge of a buildings energy performance, will take that into account when negotiating a deal. Thus, as more buildings adopt energy efficiency measures, benchmarking will further encourage building owners to replace inefficient building systems.

In the long-run, reducing green house emitting gasses is perhaps the most significant aspect of the GGBP. Requiring all buildings that are at least 50,000 sq. ft. to reduce their energy consumption is a good start at addressing one of humanities greatest collective challenge, global warming.

However, CEC is concerned that several components of the GGPB compromise its effectiveness in thwarting climate change. First, limiting energy efficiency measures to those with a 7-year payback will not result in significant energy savings; second, there is no discussion in the GGBP of how it will ensure compliance and quality control; finally, full participation does not occur until 2022. The current plan will result in a missed opportunity to meaningfully combat global warming.

Amending the plan, specifically Intro 967 and 476-A, so that it more effectively thwarts global warming will also contribute to a healthier living environment. New York City ranks among the nation's most polluted cities.[1] Over a third of the most dangerous pollutants, PM 2.5 or "soot", is generated from the electricity and heating fuels used to power and heat our buildings.[2] In essence, the city cannot afford to be complacent about its air quality.

[1] Dave Goldiner, "City's High on National Bad-Air-Day List." *New York Times*, April 30, 2009
[2] PLANYC 2030

CEC Offers Two Recommends to Enhance the GGBP

As part of our enthusiasm and strong support for the GGBP in its current form, CEC would like to offer two recommendations that could strengthen and increase the ultimate effectiveness of the GGBP.

Recently, a number of factors have converged to increase the popularity of installing energy efficiency measures in commercial and residential buildings. CEC encourages this trend, but our experience has taught us that identifying energy efficiency measures, installing and also maintaining them are complex undertakings that demand certain precautions.

CEC urges the Mayor and the City Council to implement two recommendations aimed at improving the current energy efficiency legislative suite. These recommendations will ensure that the GGBP successfully achieves its objectives. Most important, their implementation will result in an enhanced effort to reduce greenhouse gas emissions. They include:

I. Appropriate Proper Funding and Administrative Authority to Ensure Programmatic Quality Control; and

II. Create Greater Incentives that Encourage Early adopters and also the Implementation of Energy Efficiency Measures that Result in Deeper Energy Savings.

What follows are several strategies that the Mayor and the City Council should consider to achieve the above-mentioned recommendations. Our aim is to enhance the success of the GGBP, support building owners achieve savings, improve the city's air quality and do more to mitigate climate change.

I. Strategies to Assure Programmatic Quality Control

Audits Must Face Rigorous Scrutiny

CEC's major concern regarding the GGBP audits is the potential conflict of interest that exists when building owners are directly responsible for employing energy efficiency auditors. Energy audits are often perceived as an entirely objective process. However, this simply is not true. CEC's experience in conducting energy audits throughout New York City demonstrates that audits – particularly in complex and large buildings, such as those targeted in the GGBP – allow for significant margins for interpretation.

Seeking to invest the least amount of money to comply with the law, building owners are likely to influence their hired auditors to identify and recommend the least expensive energy efficiency measures rather than those measures that achieve the greatest amount of energy within a 7-year payback period. It is imperative that the GGBP discourage this conflict by strengthening the auditors hand in dealing with pressure from building owners.

Ensure Adequate Audits by Implementing an Annual Technical Review Process of Randomly Selected Audits

Further, CEC's suggests that an annual review be conducted of randomly selected audited buildings to test whether an audit meets the required standards. This recommendation will ensure that auditors are complying with the standards set forth in the GGBP and also that they identify the most energy efficient measures with 7-year paybacks. In order to discourage noncompliance and owner influence, auditors that are found to overlook measures should be penalized. We suggest that such auditors be suspended from doing audits.

Benchmarking Information Should be Strategically Utilized to Ensure that Energy Savings are Achieved

As previously mentioned, CEC believes that benchmarking will use market principles to effectively incentivize building owners to install energy efficiency measures. However, CEC recommends that benchmarking information should also be used to monitor the effectiveness of installed measures. Benchmarking data should be employed to determine if building owners successfully implemented mandated energy efficiency measures without having to wait 10 years until another audit is performed. If a building fails to meet its expected savings (as determined by the original audit), benchmarking data could trigger further inspections. Inspections will help to identify the cause of low-performing buildings.

CEC's experience shows that four factors could result in lower than expected energy savings. First, the auditor may have not have identified the correct energy efficiency measures; second, the recommended measures may not be properly installed; third, recommended measures were not installed altogether; and fourth, that energy efficiency measures are not properly maintained. Benchmarking should be used to identify buildings that do not achieve projected energy savings and technical support should be provided to locate the cause of inefficiencies.

The current EPA portfolio management system is entirely reliant on the honesty of self-reporting. As such, CEC cautions against building owners that will inevitably report inaccurate information in order to hide energy inefficiencies. To prevent erroneous benchmarking, CEC recommends that a percentage of benchmarking reports be matched up against utility data, thereby ensuring that information is accurate. Lastly, it is important to recognize that the current EPA software will require significant modifications as part of the GGBP.

Provide Technical Support and Training to Participating Buildings that do not Achieve Projected Energy Savings

Buildings owners and managers responsible for buildings that do not achieve projected energy savings identified through benchmarking should be provided technical support on how to more effectively manage and maintain installed energy efficiency measurers.

Additionally, CEC suggests expanding pre-existing green-certification programs for maintenance teams. This will help to ensure that cost-effective energy efficiency measures are more likely to be fully realized in New York City's buildings. Training is particularly import for managers of very large buildings. CEC has observed that advanced efficiency technologies for large buildings are often underutilized or ineffectively implemented due to building-operators lack of experience. CEC recommends that quality training of this sort be included as part of the workforce development component of the GGBP.

The Need for GGBP Program Administration

In order to establish quality control and program effectiveness, the Mayor and the City Council must make the decision on what is the optimal administrative model for the GGBP. If the city decides to administer the GGBP it will be required to create a new unit. An alternative to that option would be to contract out to an experienced energy efficiency provider that can ensure quality control and program compliance. Whatever option is chosen, it is critically important that administrative and quality control is adequately funded.

II. Create Greater Incentives that Encourage Early Adapters and Deeper Energy Savings

As previously mentioned, the GGBP will benefit New York City socially and economically. However, CEC believes that the most significant and critical benefit of the GGBP is its impact on reducing greenhouse gas emissions. The GGBP has the potential to be an important tool in mitigating global warming. Despite our support for the GGBP, CEC believes that not encouraging greater energy efficiency measures is a missed opportunity to fight global warming that we cannot afford.

Limiting energy efficiency measures to those that have a 7-year payback omits those measures that result in greater energy savings. Measures that meet the 7-year payback criteria are typically considered "low-hanging fruit". They include lighting upgrades, weather-stripping and energy

management systems. CEC does not believe that building owners will install more substantive energy efficiency measures voluntarily.

Further limiting the reduction of greenhouse gas emissions is the GGBP provision that energy efficiency measures will be constrained to common areas and also that compliance is required for only 10 percent of qualifying buildings annually.

Concerning costs, the need for financing to support this program is vitally important for its success. We commend the Mayor and the City Council for recognizing this fact. Allocating Stimulus Funds for buildings with financial hardships in order to ensure that they will have the resources to comply with the GGBP is a good use of that money.

However, CEC has observed that private firms, such as Community Preservation Corporation and Energy Service Companies, recognize the profits locked up in inefficient building operations. In response, they are already preparing to provide financing for energy efficiency work in multifamily buildings. As such, Stimulus Funds might be put to better use to encourage early adopters and the installation of energy efficiency measures that produce deeper energy savings.

Focus Stimulus Funds on the Least Efficient Buildings

As mentioned above, benchmarking will provide an opportunity to identify very low-performing buildings. To achieve the maximum amount of energy savings with finite resources, CEC recommends that the least efficient buildings be targeted for use of the Stimulus Funds. In exchange for receiving a subsidy, these building owners should be required to implement energy efficiency measures that result in greater energy savings than the current plan mandates.

We also suggest leaving the financing of basic energy efficiency measures to the private sector and using Stimulus Funds to incentivize measures that have more than a 7-year payback in buildings most in need of this work.

The City Should Develop an Incentive for Owners that Work with the Weatherization Assistance Program, the Multifamily Assistance Program or Utility Programs

An additional strategy to encourage the installation of more comprehensive energy efficiency measures in low-performing buildings is to provide incentives to building owners that work with existing energy efficiency programs. The federal Weatherization Assistance Program and the state Multifamily Performance Program require deeper energy savings than the GGBP. In exchange for installing more comprehensive energy efficiency measures, owners could be exempt from an audit for 20 years instead of 10 years.

Require Full Audits

To encourage building owners of very inefficient buildings to implement comprehensive energy efficiency measures, the city should offer a subsidy that covers the difference between the type of audit that the plan requires and one that identifies more comprehensive measures with more than a 7-year payback.

The City Should Amend the Provision that Requires 10 Percent Participation Annually to 20 Percent

CEC has witnessed a rapid expansion of the weatherization industry. An increasing number of people are interested in receiving the required training to gain employment in this business. Also, weatherization firms throughout the tri-state area are expanding.

As such, we are convinced that when the GGBP becomes law that the energy efficiency industry will successfully adapt to meet the new demand in weatherization services. Training schools will recruit and graduate the required students and weatherization firms will be well positioned to absorb the additional work.

Given this, to more effectively address global warming, we suggest that the Mayor and the City Council require compliance of 20 percent of qualifying buildings annually. We do not see any need to limit compliance to 10 percent as the current plan provides.

Conclusion

Community Environmental Center (CEC) believes that the Greater, Greener Building Plan (GGBP) introduced by the Mayor and the City Council is a significant step forward in achieving greater energy conservation in New York City, ultimately helping our communities combat climate change, improve air quality, strengthen the economy and support working class families. CEC is in strong support of this creative and much needed environmental legislation.

However, CEC is concerned that several components of the GGPB compromise its effectiveness in thwarting climate change. Limiting energy efficiency measures to those with a 7-year payback will not result in significant energy savings. Second, there is no discussion in the GGBP of how it will ensure compliance and quality control. Finally, full participation does not occur until 2022. Consequently, the current plan will result in a missed opportunity to meaningfully combat global warming.

Our recommendations to appropriate proper funding and administrative authority to ensure programmatic quality control and also to create greater incentives that encourage early adapters and deeper energy savings will enhance the programs ability to thwart global warming. Our strategies to achieve these recommendations are flexible. Thus, they can be amended for easy implementation.

CEC cannot overstate our support for this legislation. We look forwards to working with the Mayor and the City Council on this important environmental legislation.

COMMUNITY ENVIRONMENTAL CENTER

A Not-for-Profit Professional Organization

Community Environmental Center testimony before the New York City Council Environmental Protection Committee on Intro 967 and Intro 476-A
June 26, 2009

Thank you for providing the opportunity to testify on this critically important legislation.

I am Richard Cherry, President of Community Environmental Center. Simply stated, CEC's mission is to reduce green house gas emissions from NYC's buildings. We also have a particular emphasis on helping low income buildings.

We have been doing this for over 15 years. During this time we have done audits and/or retrofits in over 100,000 homes and apartments. What is particularly exciting is that our work has reduced emissions of over 750,000 tons of carbon.

In other words, we know the business that this legislation addresses. We know how important it is and we know that it will work. Our primary reason for being here today is to urge that it get passed.

Of course the most important goal of this legislation is to deal with our climate crisis. This is too critical an issue to not require that building owners do something about it. And all that this legislation requires is that owners do something that makes economic sense for them to do.

This legislation will also go a long way towards building a new economic base in NYC; simulating the economy; creating jobs and building a stronger middle class. Work for energy efficiency technicians, electricians, equipment salesman, engineers, etc.

It is because of how important this legislation is that I am also here to encourage you to quicken and strengthen its impact. The earth that we know is eroding too rapidly to wait fourteen years for the full impact of this legislation to take effect. At the minimum, this should be shortened to six or seven years.

I know there are concerns about the capacity of the energy field to get this work done. I truly don't believe that is a problem. After the passage of this legislation, with one year before the first buildings get selected, there will be enough time for

firms and contractors to ramp up. With the opportunities this legislation would open up, engineers coming out of school would chose this line of work and stay in NYC; and green job training programs which are sprouting up everywhere would develop the technicians needed to get the work done.

I also believe that the private sector will develop the financing vehicles needed by owners to provide the capital needed to do this work. I have been involved in discussions for many years about financing for energy efficiency work. There is great interest and this legislation will be the trigger that will turn these discussions into real dollars.

So we recommend that instead of 10% of the buildings being done each year; it be increased to 20%. And that owners be given two years, instead of three years, to get the audit and retrofits done.

The other concern that I have is that I see nothing in the legislation about administration and quality controls. Frankly, this is too important a piece of legislation to just depend on each owner and each auditor and contractor to do the right thing. How are we going to know that the benchmarking data entered by the owner doesn't paint a rosier picture than the reality; or that the energy auditor hasn't erred on the side of missing some work that should be done in order to save his client, the owner, some money; or that the retrofit work that was supposed to be done, is actually done by a contractor and done properly.

A system of safeguards needs to be put in place and administered carefully. It will cost money, whether done by the City itself or by a contractor hired by the City. But it needs to be done, and the money needs to be appropriated, or much of the good intention of this legislation will not become a reality.

With this testimony I am also submitting a Position Statement that elaborates on these points and that contains some other recommendations. One suggestion is to use the benchmarking data to focus on the City's least efficient buildings and to encourage their owners to do more than just the seven year measures.

Again I thank you for the opportunity to comment. I would be glad to be of any help I can in dealing with this critical legislation. It is very important that it gets passed and properly administered. Frankly it's a moral imperative that we get this work done and quickly.

Richard M. Cherry

Testimony prepared by Tatianna Echevarria

New York City Council Environmental Protection Committee

Regarding Int. No. 564-A, Int. No. 973, Int. No. 967, and Int. No. 476-A

June 26, 2009

Hello, my name is Tatianna Echevarria and I am President of ACTION, Activists Coming To Inform Our Neighborghood, which is a teen activist group based at The Point CDC.

The movement to "go green" is one that has swept America like a storm, with sayings on everything from t-shirts to bracelets, yet there is not much concrete evidence one can point to that demonstrates this movement is more than just a phase that is built on good ideas. I'd like to commend the city for breaking out of this idealistic phase and developing a plan that is progressive in both principle and practice by addressing the issue of climate change with such an aggressive agenda.

Coming from an area like the South Bronx, I have experienced first hand the negative effects of an unhealthy environment. While endless truck traffic, ever-going construction, and virtually toxic factories are not pleasant, the thing that troubles me most is the lack of effort to change any of it. As a city we have maintained a notoriously hands off approach in regards to the environment and have watched pockets of low-income community of color suffer through the harsh impacts of environmental decay. This plan comes as almost a literal breath of fresh air because it not only outlines steps to help alleviate environmental issues, it also signals that the city has finally realized that our environment is not something that is only relevant by zip code, and has committed to reversing the effects of a grim environmental past and preventing what could be a disastrous future.

The ultimate priority in this package of legislation is the future, and New York's environmental future is of particular concern to me because it is the city my generation will inherit. There is always reference to the idea that today's young people are tomorrow leaders, well on behalf of the young community I am urging our leaders of today to recognize that climate change is a pressing issue that must be addressed because the true ramifications of the environmental damage being done today will be felt by everyone tomorrow, but passing this package will move the city toward a greener, healthier existence and pave the way for an efficient yet healthy environmental future. Thank you.

UPROSE

Testimony of

Soledad Gaztambide-Arandes, UPROSE Program Coordinator

At the New York City Council

Respecting Proposed Intro 476-A, 564-A, 967, and 973

June 26, 2009

Good morning, Chairman Gennaro and members of the committee. My name is Soledad Gaztambide-Arande and I am a program Coordinator at UPROSE. We are grateful for the opportunity to testify today on the four bills before you. I am here on behalf of UPROSE and the New York City Environmental Justice Alliance and as you know, our Executive Director, Elizabeth Yeampierre serves on the Mayor's Sustainability and Long Term Planning Advisory Board that has worked so diligently to make recommendations that will serve to reduce carbon and co-pollutants throughout the City.

Founded in 1964, UPROSE is Brooklyn's oldest Latino community-based organization. In 1996 our mission shifted to organizing, advocacy and developing indigenous leadership through activism. We aim to ensure and heighten community awareness and involvement, develop participatory community planning practices, and promote sustainable development with justice and governmental accountability. Our efforts encompass a variety of environmental and health issues from the development of our waterfront and local brownfields to addressing transportation, air quality and open space needs. Over the years, UPROSE has established coalitions, engaged in direct actions, and helped to shape city and regional policy

The New York City Environmental Justice Alliance (NYCEJA) is an umbrella organization comprised of member groups based in low-income communities and communities of color throughout New York City. Founded in 1991 by environmental justice activists, NYCEJA empowers its member organizations to fight against environmental injustice by the coordination of citywide campaigns. Through our efforts, member organizations coalesce around specific common issues that threaten the ability for low- income communities of color to thrive.

While UPROSE and NYCEJA support the 4 pieces of legislation before you, we do have a number of concerns which we would like to address as you move forward in supporting this historical effort. Because we represent the interest of communities of color that have long been the reluctant hosts to the City's most polluting infrastructure, we want to ensure that efforts to reduce carbon don't have a negative impacts on our communities.

You have already heard about the importance of the Energy Code Bill , the lighting bill and the importance of benchmarking energy efficiency. We agree that tools and standards are necessary if we are to make progress. We also believe that the benefits of beginning this initiative by retrofitting 2% of the City's buildings is so substantial that it gives us hope about our ability to address the impacts of climate change.

However, we are concerned that as buildings become more energy efficient that your collaboration with the State increases to address removing the old, dirty, toxic peaker generators that operate in communities of color. The efforts are substantial, but we are concerned that the projected increase in the population of 1 million people will leave us without any environmental remediation.

People of color and many immigrants become maintenance workers and super-intendants of buildings without having any formal training , command of the English language or support of unions. Any licensing, certification or required training must occur without displacing these workers and must provide them with multi-lingual training and support services and employment criteria must be entirely job-related

We also stand in solidarity with the housing advocates in stating that any MCI's (Major Capital Investments) that arise from landlord investment must end as soon as the funds are re-couped. The fact that MCI's last forever and landlords get their money back several times is an injustice.

It is our position that these bills are necessary if we are to address the urgency of the climate change crises, but they must be rolled out mindful of the needs of NYC's most vulnerable communities.

THANK YOU.

For more information please call:

Elizabeth C. Yeampierre, Esq.

Executive Director of UPROSE
President of the New York City Environmental Justice Alliance at 718-492-9307

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Testimony before the New York City Council Environmental Protection Committee by *Institute for Urban Design* Executive Director Olympia Kazi

Friday June 26th, 2009

My name is Olympia Kazi. I am the executive director of the *Institute for Urban Design*, a nonprofit membership organization of architects, planners and real estate developers. On behalf of the *Institute for Urban Design*, I want to thank the New York City Council Environmental Protection Committee for the opportunity to testify here today.

On behalf of the *Institute*, I want to give testimony in support of the *Greener, Greater Buildings Plan.* Several initiatives within the proposed bills are timely and relevant. Above all, rethinking, expanding, and improving New York City's building code is a pressing matter. In the architecture and urban design world, the joke is that building codes are "as good as to keep you out of jail." It is about time that we raise our standards and establish a comprehensive, modern regulatory framework. By making energy efficiency a quantifiable measure for buildings and by setting performance standards, not only will we be taking a great step toward diminishing our carbon emissions, we will also be putting an end to an investment black hole: environmentally unsound buildings are in the long run less cost efficient too.

As part of our support for these bills, we would like advance a couple of comments and suggestions.

First: Although it seems to us appropriate to focus on existing buildings first and pursue initially the most cost-effective and doable ideas (as these bills do), we must not lose sight of the bigger picture. It is essential that we work on different fronts and try to develop an array of green initiatives for both existing and future buildings, initiative that need to be aligned across agencies. One example: it is important that we address things that may seem inconsequential but can actually make a great difference, and encourage, for example, the use of iterating thermostats and light-saving timers in all New York City buildings, and, at a more basic level, encourage people to get greater understanding of shading devices and their functions or of the importance of cross-ventilation. Things like these, which can have a significant impact on quality of life, are hard to quantify and codify, but they must be promoted by your Committee. The Office of Long-term Planning and Sustainability is working a lot on public outreach, but a greater investment on civic education is needed.

Second: No city or building will ever be environmentally efficient unless it is so socially. We urge you to make all the amendments required to ensure that this bill does not become an opportunity for an upward distortion of rents where tenants would have to assume the first costs while landlords would reap the long-term benefits. The Major Capital Improvement Allowance, a measure whereby a building owner who makes capital improvements is allowed to increase the rent pro-rated, should be amended to address this potential problem.

Many say that with the current state of the economy we should not be asking people to change or to invest. We believe that this would be a mistake and a missed opportunity. We believe that now is the moment to plan for the recovery, and I am confident that this Committee will step up to the occasion.

Thank you,

Olympia Kazi

NYIRN
New York Industrial Retention Network
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Testimony before the New York City Council Committee on Environmental Protection
Topic: Ints. 476-A; 967; 973; and 564-A - Energy Efficiency in Building Stock
June 26, 2009

My name is Amy Anderson and I am the Project Manager for Sustainable Initiatives at the New York Industrial Retention Network ("NYIRN"). NYIRN is a citywide economic development organization that works with manufacturers to retain and create blue-collar jobs and to promote sustainable development. Since 2005, NYIRN has been providing technical assistance and funding to manufacturing firms to undertake facility audits and implement energy conservation measures—increasing the company's energy efficiency, ultimately reducing their overall operating costs. To date, our organization has worked with over 41 companies and has leveraged over $1 million dollars in project financing in the form of grants.

NYIRN supports the merits and goals that are set forth in proposed local laws 476-A; 967; 973; and 564-A. When combined, these initiatives seek to provide a comprehensive approach to reduce the carbon footprint of the City's existing building stock through the identification, installation, implementation, and maintenance of energy conservation measures ("ECMs"). Buildings are responsible for approximately 80% of global warming emissions and 40% of locally generated air pollution in New York City. [1]

NYIRN is concerned about the imposed requirements on the manufacturing sector. There are approximately 1,053 industrial lots that will be required to comply with the proposed laws.[2] Manufacturing firms are primarily small businesses that operate within an

[1] "Energy" PlaNYC 2030. pp. 101. April 30, 2007.
[2] Building area and lot square footage chart, New York City Department of Buildings.

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extremely tight margin with little to no extra cash flow to cover the upfront costs that are associated with making a facility more energy efficient. Most cost-share programs, such as those offered by NYSERDA, are on a reimbursement basis with longer timelines for repayment. According to the New York City Department of Finance, there will be an estimated 14,387 lots across all building types that must comply with this law. The proposed revolving loan fund comprising of $16 million of federal stimulus money will not suffice to cover the amount of financial assistance that will be needed given the number of identified properties and the anticipated costs that owners will be responsible to pay when implementing measures with a seven (7) year or less payback.

In addition to the financing component, NYIRN has also found that providing technical assistance to these companies is critical to maintaining project timelines and achieving project objectives. Since most companies have limited administrative capacity combined with little education concerning existing incentive programs, NYIRN has filled a gap in the market by facilitating both the audit and implementation processes between the manufacturer and energy contractor. It is our belief that these services should continue to assist companies with the benchmarking, auditing and implementation phases which will ensure a greater rate of compliance amongst the firms.

NYIRN offers the following recommendations for consideration to be incorporated in the design and implementation of these proposed laws:

- Explore additional financing sources on both the front and back ends of the project to ease the burden on manufacturing firms that have to provide upfront costs for energy conservation measures. Extra incentives may take the form of a

NJ CT NY
Regional Plan Association

Testimony of Neysa C. Pranger, Director, Public Affairs, Regional Plan Association before the New York City Council Committee on Environmental Protection June 26, 2009

My name is Neysa Pranger and I'm Director of Public Affairs for Regional Plan Association, a private, nonprofit research and planning organization serving the greater New York metropolitan region.

RPA is a strong supporter of the legislation to green the city's building code including the city energy code, lighting upgrades, benchmarking and audits and retrofits. Each innovative proposal meets three critical bottom lines of improving the environment, saving money, and improving economic conditions by attracting a base of green jobs.

NYC Energy Code
Regarding the NYC energy code we hope that the loophole that allows inefficient equipment replacement can be closed to promote replacement with smarter equipment. The legislative adjustments to enforce efficiency compliance at time of renovation for projects that only do portions of buildings are simple and straightforward.

Lighting Upgrades
Given that a fifth of NYC energy is lighting use, we support this provision that will require all large buildings to upgrade all their lighting over the next 12 years. The only downside here is that the bill doesn't go too far but it does appear as though the city has determined the maximum capabilities through legislative provisioning.

Benchmarking
RPA also supports the need to benchmark since it will create an effective tool for owners and buyers to compare buildings energy consumption. We would label this bill as "brilliant" given that inserting efficiency information into assessments – and getting the market value of properties to reflect their energy efficiency – will potentially have the largest impact of all the legislation here.

Audits and Retrofits
Finally, we support the legislation requiring audits and retrofits. This legislation will require an audit once every 10 years that will promote improvements that will pay for themselves and reduce environmental footprint. The retrofit bill will require major monitoring and staffing and private sector ability to complete them, which could pose major challenges but this goal is laudable and should be supported.

Lastly, two caveats. RPA supports these provisions if and only if proper incentives are in place to protect rent regulated and rent stabilized tenants. Second, we also encourage the Council to take up and approve other aspects of the Greener Greater Buildings plan including the Green Workforce Development Trainings and Green Building Financing Plans. Not pursuing these bills will undermine the potential for positive economic impact on the city and ability to complete the goals above.

Thank you for the opportunity to testify today.

June 26, 2009

The Council of the City of New York
Office of the Speaker
City Hall
New York, NY 10007

RE: NEW YORK ENERGY CONSUMERS COUNCIL, INC. - PROPOSED ENERGY LEGISLATION

Prop. Int. No. 476-A – ARTICLE 309
Prop. Int. No. 967 – ARTICLE 308
Prop. Int. No. 973 – ARTICLE 310
Prop. Int. No. 564-A – CHAPTER 10 – ARTICLE 1001

Enclosed are twenty (20) copies of my testimony in regards to the proposed energy legislation listed above.

Sincerely,

David F. Bomke
Executive Director
New York Energy Consumers Council, Inc.
11 Pennsylvania Plaza, Floor 22
New York NY 10001-2006

DFB/hs

Enclosure

F:\BOMKEHP\DATA\N.Y.E.C.C\09.06.12 ENERGY LEGISLATION TESTIMONY.DOC

My name is David F. Bomke. I am the Executive Director of the New York Energy Consumers Council, Inc. "(NYECC"), which is located at 11 Pennsylvania Plaza, 22nd Floor, New York, New York, 10001-2006. NYECC's members represent a broad spectrum of energy consumers, including hospitals, universities, financial institutions, residential and commercial property owners and managers, public benefit corporations, energy service companies, and energy consultants. Our membership may represent as much as one-third of the commercial electric load in New York City, or more than 5% of the total electric load in our City.

Thank you for inviting me to attend this hearing and testify herein. My testimony is aimed toward ensuring that the legislation contemplated today is crafted to achieve the City's energy goals and objectives rather than to thwart them. The urgency of reducing our nation's energy consumption is far too great to place the burden of responsibility on building owners and managers. We are primarily concerned that the proposed legislation will not be effective, will not be fairly and equitably feasible, and is largely misdirected. In addition to expanding on each of those concerns, I will offer specific remedies.

First, legislative mandates have a long history of failure to achieve meaningful results – particularly in terms of energy consumption. The example of the "double-nickel" speed limits imposed in the mid-1970s and largely overturned within the following two decades is worth considering, as is the example of Corporate Average Fuel Economy (CAFÉ) standards. I would suggest that our nation saw far greater commitment to reducing vehicular energy consumption last year when prices jumped from less than $3.00 per gallon to more than $4.00 per gallon than we ever saw as a result of mandated reductions in speed limits or incremental CAFÉ standards. Even Presidential leadership –

President Johnson turning off lights in the White House and President Carter's wearing cardigan sweaters – failed to make a significant change in behavior. Behavioral changes require broadly based constituent commitment. Contrast the rate of evolution of technology in telephone service under mandatory regulation with accelerated changes in the past decade. Revolutionary behavioral changes require a fundamental partnership between an industry and that industry's constituents. All parties must work together to motivate energy consumers to change their behavior.

Second, by its own account, the NYC Department of Buildings maintains a focus on safety, service, and integrity in its responsibility to ensure the safe and lawful use of over 950,000 buildings and properties by enforcing the City's Building Code, Electrical Code, Zoning Resolution, New York State Labor Law, and New York State Multiple Dwelling Law. The proposed legislation would impose significant incremental burden on an Agency already facing extraordinary challenges. Enforcement success would presumably rely heavily on the consent of all the governed, the visibility of the work, and community awareness and understanding. The absence of all three elements fosters an environment for inequitable compliance. Parties committed to energy efficiency will ultimately bear the costs of compliance, and those entities that are not so committed will not. No good deed will go unpunished, but there would be tremendous potential for less scrupulous parties "getting away" with bad behavior.

Third, this legislation is aimed at building owners and managers, but building occupants drive the bulk of the energy consumed in each building. Tenant requirements set heating and cooling levels, and many of their operating practices set electrical requirements. Tenants who operate 24/7 use more energy than tenants who operate only 40~50 hours

per week. Occupants who use energy-intensive data centers and other technology use more energy than those who maintain less energy-intensive technologies. Legislation that holds building owners and managers accountable for energy consumed by their tenants miss the mark.

Finally, we would urge the City to slow down this legislative effort. Start with collecting and analyzing the data. Mandate benchmarking, but provide opportunities to learn from that data before committing to publicizing it. Use the data initially collected to identify benchmarking deficiencies and implement solutions to improving the benchmarking process itself. Evaluate the data to identify where the most-effective opportunities for savings actually exist. Design legislative and leadership processes that would drive changes where they are most needed. Test the hypotheses with voluntary and pilot programs. Evaluate the results. Implement viable energy consumption reduction strategies and legislature that will achieve those results.

All parties should demonstrate both the urgency and benefits of increased energy efficiency. Reward energy performance improvement, but remember that using less energy is not necessarily better. A building that increases its space and energy utilization should reduce energy consumption per person even though it may increase energy consumption per square foot. Tactical increases in New York's energy consumption can and should lead to significant decreases in energy consumption on the planet. Increasing the direct and indirect financial burden on New York's large buildings may reduce their energy consumption by driving businesses and tenants away from New York, reducing New York's tax base, and increasing energy consumption on the planet.

Testimony by
Brian T. Coleman, CEO
Greenpoint Manufacturing Design Center (GMDC)
June 26, 2009

Good morning, my name is Brian Coleman; I am the CEO of the Greenpoint Manufacturing & Design Center, New York City's leading non-profit industrial developer.

I am here today to inform you of some of our concerns regarding proposed legislation that will require benchmarking energy usage in buildings larger than 50,000 square feet, require energy audits and systems upgrades for these buildings and the upgrade of lighting systems for these buildings.

Firstly, a 50,000 square foot building is not very large. Many New York City non-profit organizations operate in buildings 50,000 sq. ft. in size that will be obligated to the rules and regulations required in the proposed legislation. These owners include hospitals, community centers, grammar schools, high schools, as well as day care centers, medical clinics and other community based organizations. Our organization, as well as most of the types of organizations I just mentioned, operate on fixed budgets with limited staffs. The proposed legislation will place a burden, both financially and administratively on us since there are no provisions in the proposed laws to offer financial assistance for the implementation of the work that we will be required to do.

As a landlord with commercial tenants it is often very difficult to get a tenant to report information that they are required to report as per their lease, such as a New York City IDA questionnaire. It will be extremely difficult if not impossible to get a large percentage of tenants to report information that they have no obligation to report. Sure we'll amend our leases so new tenants or renewals will be obligated in the future, but that won't help us now. It sounds easy, but on a practical day to day level this will be an administrative/management nightmare.

With reference to the utility responsibility of uploading accurate information, we are very suspect. We literally receive utility bills that have been whited out and handwritten on computer generated bills. We receive inaccurate estimated bills. I am not sure if the data that is to be provided will be worthwhile, because we often receive bills that are just plain wrong and require significant staff work to unwind. We're afraid that the benchmarking data will be similar and will require the same amount of staff time.

I know that there is a provision in the proposed legislation to account for landmarked or historic buildings. Unfortunately, we don't believe that this provision goes far enough. GMDC recently completed a complicated transaction at our 221 McKibbin facility that was partially funded with support from the City Council. In this transaction we used a combination of federal Historic Rehabilitation and New Markets Tax Credits. Any changes to the work that the state or federal governments required us to do would trigger a recapture of the tax credits and frankly financial ruin for the project. The law should provide certain provisions so as the aforementioned example cannot happen.

GMDC strongly believes in the intentions of the proposed legislation. We consider ourselves leaders in "greening" long before it became so popular. Our six year old photovoltaic solar powered system is the largest commercial system in the City of New York. With financial support from the Council we will begin shortly an initiative to expand solar power to all of our facilities, and will begin major systems upgrades at our Manhattan Avenue facility. We get it, we believe in the cause, but we're very concerned about the financial and administrative burdens that the legislation will put on small non-profit organizations such as ours.

Thank you for the consideration of my testimony.

Testimony of Pat Sapinsley

City Council, June 26 2009

pat.sapinsley@goodenergies.com
646-703-4693

By way of introduction, I am Pat Sapinsley, of Good Energies, a Venture Capital firm that invests in renewable energy and energy efficient technologies. I am also a LEED AP architect and co chair of COTE AIA, but I stand before you today as a concerned citizen.

I'd like to thank the City Council Environmental Protection Committee and the Mayor's Office for Long Term Planning and Sustainability for proposing the bills that we are discussing today,

- Int. No.967, Article 308: AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS
- Int. No. 476-A, Article 309: BENCHMARKING ENERGY AND WATER USE
- Int. No. 973, Article 310: REQUIRED UPGRADE OF LIGHTING SYSTEMS
- Proposed Int. No. 564-A, Article 1001: ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE.

Imperative that all 4 be passed as a suite of bills

In 1918, NYC took the bold move of proposing zoning laws that changed the face of the city and that helped to create the unique architecture that is NYC. Through that forward thinking legislation, we led the world in innovation that improved our building stock. I would like to see us lead the world again, by enacting this important suite of laws. What is important about these energy code initiatives is that the focus has shifted from new construction to existing buildings. Due to old technology, a lack of maintenance and inertia, existing buildings cause the bulk of the problem in most urban centers. This is a tremendous opportunity for New York to once again be a global leader, this time, by retrofitting existing buildings to reduce global warming.

We need to be aware that there are details which need to be addressed so that auditors, Department of Buildings examiners and cost estimators get proper training and use proper metrics, as the AIA noted.

- Qualifications for Energy Auditors: Should require ASHRAE Level 2 Energy Auditing training.
- Qualifications for Cost Estimators: These need to be determined. The qualifications should refer to an industry standard for cost estimating such as RS Means.
- Payback Calculations: A rolling average of a building's prior three years' energy costs should be the basis for payback calculations.

We also need to guard against conflicts of interest that may arise if ESCOs and other contractors are allowed to both do the inspections and perform the work. These two functions should be kept quite separate or opportunities for improper behavior could exist.

MEMORANDUM

To: The New York City Council, Environmental Protection Committee,

James F. Gennaro, Chairperson

From: Charles Cameron, Assoc. International Association of Lighting Designers, Illuminating Engineering Society of North America

Cc:

Subject: Int 0564-2007, Int 0972-2009, Int 0967-2009

I am an architectural lighting designer with a Manhattan based practice and a resident of Brooklyn. I am a member of the International Association of Lighting Designers, where I participate in the Energy & Sustainability Committee and the Vice-President of the NYC Chapter of the Illuminating Engineering Society of North America, I would like to commend the Council and the Mayor's office on Long-term Planning and Sustainability for the active stance they have taken in reducing the environmental impact of New York City.

The creation of a NYC Energy Code is a great idea and I wholeheartedly support the idea of adapting modifications of the NYS Energy Conservation Construction Code to create the NYC Code. Removing the exemption for projects that improve less than 50% of the floor area in a building will be an

important step in improving the environmental performance of construction in NYC. I suggest that that keeping the NYC Energy code tied to the state code, or another standard like ASHRE 90.1, with a few straightforward modifications creates a straightforward path to compliance for architectural design professionals such as myself. The council should also consider how the code would be enforced so that it delivers the expected benefit in the completed construction.

The fact that buildings systems last for decades makes the lighting upgrade and energy auditing introductions important moves to compel a change in inertia for less responsible building owners.

Both God and the devil are in the details. I recommend that council call upon the great community of design professionals in the city to develop the details of these and future initiatives. This was begun when the Mayor's office engaged the US Green Building Council's New York Chapter to convene the Green Codes Task Force.

At the start of his recent book, Howard Brandston reminds us "Light, like music, fills, reveals and creates space". We must remember that in the rush to pronounce that we are going to reduce energy by x % or carbon emissions by x tons that light is not just a use of power. At the baseline, Light is needed for vision and an appropriate amount of light is required to do tasks accurately. There are many more aspects in the relationship of humans to light. More and more scientist are quantifying the ways in which

lighting effects human physical and physiological health and so we must understand that light is a part of the environmental quality of a space. Well-designed light also creates a sense of place and wonder. In addition to the aesthetic benefits and prestige of quality design comes economic benefits. The most obvious example is the effect of the NYC skyline on tourism. In 2006 the city of Liverpool commissioned a study on the impact of their lighting master plan that provided professionally designed lighting for many of the historic and notable structures in the city center. The results showed that both tourists and residents were visiting the city center more often and spending over 40% more time and money there on those visits.

I would also like to remind the council that the other side of the electricity equation is the energy supply. If all our power came from non-polluting sources then lighting would not have a negative environmental impact. The use of clean power and building integrated renewable power generation could be incentivized by linking it to lighting. A example of this is that if a developer wants to create iconic exterior lighting for their high-rise then they must utilize non-polluting sources of power.

Thank you for your time and consideration of my comments.

JOHN E. OSBORN P.C.

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June 26, 2009 Testimony of Alex Truitt on behalf of John E. Osborn, P.C. before the City Council of New York City Regarding City Council Intro. No. 967 and Intro. 973.

My name is Alex Truitt. I am here to testify on behalf of the law firm of John E. Osborn PC to comment on City Council Intro. No. 967 and Intro. 973 which propose measures to reduce energy consumption and related emissions of greenhouse gases by requiring owners of thousands of existing buildings to upgrade everything from boilers to light bulbs. John E. Osborn PC represents major real estate owners including developers, hospitals, hotels, school districts and universities as well as public sector real estate owners. The views expressed are strictly those of our law firm and not of any clients or trade, professional or industry organizations in which we participate.

1. Energy efficiency requirements are necessary. Mayor Bloomberg's 2030 Plan, which was unveiled in 2007, set the goal of reducing the City of New York's carbon footprint by 30% by the year 2030. Without mandates, New York City's per capita annual increase in electricity consumption will continue to climb 1.1% a year. It has been calculated that approximately

85% of the existing buildings of New York City will still be standing in the year 2030, and therefore, it is clear that the progress to be made is in existing buildings.

2. In Intro. 967, Retro-Commissioning Measures are defined as "Non-capital work such as repairs, maintenance, adjustments, changes to controls or operational improvements which optimize a building's energy performance, and that have been identified by a systematic process of investigating and analyzing the performance of a building's equipment and systems that impact energy consumption." We suggest that language be added exempting measures which would violate lease requirements such as temperature set points, operating hours, IAQ requirements, etc., if leases are entered into before the effective date of this legislation.

3. In Intro. 967, Article 308.1, subsection 1, there is reference to "actual performance." We suggest that the provision be revised to provide that it is actual performance adjusted "for occupancy levels, use, or change of use."

4. In Intro. 967, Article 28-308.2, exception 2, it is indicated that "The covered building has received an EPA Energy Star label." We suggest that this provision be changed to require a specific Energy Star Score rather than requiring an EPA Energy Star label, because, the EPA Energy Star label covers many factors such as ventilation standards and other requirements which may unduly complicate the process.

5. In Intro. 967, Article 28-308.2.1 (iii), we suggest that the word "all" be deleted as it is to be anticipated that a professional performing an audit may inadvertently miss some opportunities.

6. In Intro. 967, Article 28-308.2.1 (iii), it is suggested that the language be clarified to indicate that the payback is exclusive of rebates, tax credits, utility incentives, etc. If this is not done, the actual payback period may be considerably longer than 7 years.

7. In Intro. 967, Article 28-308.5, lines 2 and 3: rather than indicating that the "covered building is in compliance with the provisions of this article," we

suggest that it be modified to read, "the audit report is in compliance with the provisions of this article."

8. In Intro. 967, Article 28, we suggest that it is appropriate to include language in the legislation allowing the building to recoup energy saving measures from the tenant as "additional rent". We suggest that this section be permissive, thereby allowing the building owner to negotiate leases containing provisions regarding passing these costs along as additional rent.
9. In Intro 973, Article 28.310.3, exception one exempts properties if the expenditure is below the $50,000 threshold, it may inappropriately cover related small renovations. Further thought needs to be given to exempting certain types of projects which may include those undertaken to achieve ADA compliance and other appropriate projects even though they exceed the $50,000 threshold.
10. As to the simple pay back period, it appears that the 7 year period is appropriately shortened to 5 years.
11. The legislation proposes to adopt the New York State Energy Conservation Code into the City of New York's Administrative Code. Most significantly, the State language would be eliminated which was called the "50% Rule", which exempts a wide swath of building alterations from needing Buildings Department permits and, as a consequence, making it difficult to bring existing buildings up to current efficiency standards. We support the adoption of a new City energy code, without broad exemptions.
12. We recommend that there be specific focus on developing the regulations to be adopted in connection with the legislation with specific focus on training and the setting of professional requirements for carrying out the energy audits and other aspects of the energy saving measures. It is important that specific input be obtained from design professionals, constructors, and the real estate and business communities.

Conclusion

We hope that these suggestions are of some assistance. We note that the proposed legislation calls for the carrying out of energy audits which must be performed by or under the supervision of an energy professional in accordance with rules promulgated by the Department and the legislation adopts and utilizes the measurement and Portfolio Manager software of the widely recognized and accepted EPA Energy Star program. Adoption of the legislation allows for New York City's energy efficiency efforts to set the gold standard for all localities throughout the United States. If the industry chooses to embrace the goals and specific requirements of the legislation, clever and well thought out innovations can, and will be achieved and New York City's energy reduction efforts will define the standard, both nationally and internationally.

It is essential that, as envisioned under Mayor Bloomberg's 2030 PlaNYC that there be a focus on incentives for implementing energy saving measures in the form of tax abatements, credits and deductions, as well as grants.

For further information please contact John E. Osborn, at John E. Osborn PC, by phone (212) - 576-2670 or by email at josborn@osbornlaw.com

RENT STABILIZATION ASSOCIATION • 123 William Street • New York, NY 10038

Memorandum in Opposition
Intro. 967

A Local Law to amend the administrative code of the city of New York, in relation to requiring energy audits, retro-commissioning and retrofits of building systems.

The Rent Stabilization Association of New York (RSA) represents over 25,000 owners of multiple dwellings in New York that contain over one million units of housing. RSA is opposed to Intro. 967 because of the cash flow and cost burden it would impose on residential buildings. The cost factor to building owners will also be compounded by the vagueness of proposed future rule making contained in the bill.

Intro. 967 would affect all buildings in New York City with 50,000 square feet or more regardless of the type of usage. For residential buildings this means buildings approximately 9 or 10 stories in height would be required to hire a professional or team of professional energy auditors to perform a detailed energy audit. With a few exceptions all buildings in this category will require an audit. The cost of these audits and subsequent preparation of reports would range from several thousand dollars to tens of thousands. Many buildings, especially those with low to moderate income tenants and resident owners do not have the cash flow to support an audit such as those mandated by the bill.

The bill goes on to mandate that recommendations made in the audit that have a payback period of 7 years or less be performed. Once again, these recommendations can range in cost from a few thousand to several hundred thousand dollars. The specifics as to guidance in the audits are all left to future rulemaking procedures. The exceptions to the retrofit mandates are also left to unspecified future rulemaking.

Because of potential enormous cost to many low and moderate income rental and coop buildings as well as the unknown and unspecified rules RSA is strongly opposed to Intro. 967

The City Of New York
Office of the Mayor
New York, N.Y. 10007

Testimony of

Rohit T. Aggarwala
Director of Long-Term Planning and Sustainability
City of New York

At the New York City Council
Respecting Proposed Intro 476-A, 564-A, 967, and 973

June 26, 2009

Good morning, Chairman Gennaro and members of the committee. My name is Rohit T. Aggarwala and I am the Director of Long-Term Planning and Sustainability. Joining me today on the panel representing the City is James Colgate, Assistant Commissioner at the Department of Buildings and Christopher Browne, Senior Director at the Department of Finance. I am grateful for the opportunity to testify today on the four bills before you, which comprise the legislative component of the Greener, Greater Buildings Plan which Mayor Bloomberg, Speaker Quinn, and you proposed this past Earth Day, in fulfillment of one of PlaNYC's initiatives.

Two years ago, the City Council passed Local Law 55, establishing in law the goal put forward by the Mayor and his Sustainability Advisory Board of a 30% reduction in New York City's greenhouse gas footprint by 2030. Since that time, we have seen dramatic fluctuations in the price of oil and other energy sources; we have seen the worst economic situation in a generation make it ever more important that New Yorkers reduce ongoing expenses and create jobs; we have witnessed increased instability in several of the nations on which the United States is dependent for energy; and we have seen increasing proof that the risks of climate change from greenhouse gases are real. Two years in, the goals and initiatives of PlaNYC stand with even greater urgency and relevance. Some have used the current state of the economy as an excuse for less ambitious action on climate change; I would argue, as has everyone from Thomas Friedman to President Obama, that the exact opposite is the case.

PlaNYC laid out an ambitious but achievable agenda for tackling New York City's long-term economic and environmental challenges. It set forth 127 initiatives that address the long-term quality of life needs that our still-growing city faces, while also ensuring that it

did not place uneconomic burdens on New Yorkers. As you know – and with the help of the Council – we have made great progress on many of these initiatives. In fact, our Annual Report – issued in accordance with Local Law 17 of 2008 – reported that two-thirds of the 127 initiatives are either on time or ahead of schedule to meet the milestones for December 2009 that we laid out in the original Plan.

One of PlaNYC's key findings was that the energy we use in New York City's 950,000 buildings – the heating oil, the natural gas, the electricity, the steam – accounts for nearly 80% of New York City's overall carbon footprint. Further, we know that because of the way energy prices are set, citywide efficiency measures save every New Yorker money – so there is a compelling public purpose, even aside from climate change and air pollution, for achieving energy efficiency. Finally, 85% of the buildings that New York City will have in the year 2030 already exist today. As a result, if we are serious about energy efficiency and climate change, we must take real, effective action to ensure the ongoing energy efficiency improvement of existing buildings around the city.

At the same time, we know also from PlaNYC that New York City is the most environmentally efficient economy in the United States. As a result, even if the environment were our only focus, we must not take actions that impose uneconomic investments – those that don't pay for themselves over time. Such actions would have the negative impact of making New York City uncompetitive, and driving population and job growth to less environmentally efficient parts of the United States.

With those concerns in mind, we worked with you, Mr. Chairman, Speaker Quinn, several members of the Council, and a range of stakeholders to develop the Greener, Greater Buildings Plan. We believe that this plan is the most comprehensive and thoughtful approach proposed by any American city to make existing buildings greener, and we recommend that you approve the four bills before you today that make up its legislative component.

The principles on which this legislative package is based are fairly simple. First, the largest buildings in New York City total only 22,000 buildings but account for nearly half the city's entire energy consumption. Such buildings, over 50,000 square feet, generally have some sort of professional building manager, superintendent, or other manager.

Second, many energy efficiency retrofits pay for themselves in a short period. This is why several of New York's leading real estate developers and managers have invested carefully and thoughtfully in their buildings. But many have not, either because the market does not value efficiency fully, or because they have leases that split incentives and thus make energy efficiency less attractive to either the owner or the tenant, or because they simply do not know what opportunities exist. Many landlords either have not focused on energy efficiency or have subjected efficiency investments to unrealistically high hurdle rates, such as investing only in projects that pay for themselves in one year. That's like saying that a bank account that paid you a 50% interest rate wasn't a good enough return, and you'll only invest if it pays 100% each year.

These paybacks also mean that these opportunities should be captured by whoever is paying the energy bills. If the landlord will save the money, there is no reason for tenants to have to foot the bill for the improvement. If, on the other hand, the tenants pay for the energy directly – by a meter or by a direct allocation based on energy consumption – the landlord will reap no savings and thus should not have to make any investment.

Third, we know that each building is different. Some improvements – such as lighting – are available to virtually every building, but many are not. The investments that pay for themselves in a hundred-year-old-building that's been well maintained are very different from those that would pay for themselves in a twenty-year-old building that has been poorly maintained. Similarly, the design of some buildings simply doesn't allow them to achieve high efficiency in an economic way. So, aside from lighting and a few other minor improvements, we know there is no cookie-cutter approach to smart energy savings.

Finally, we know that energy efficiency improvements that pay for themselves within several years always make sense – for any building, big or small, luxury or affordable, commercial or residential. The only question is whether the financing is available.

The Greener, Greater Buildings Plan was designed with these principles in mind. First, with Intro 564-A, it takes local control of our energy code and, in conformity with state law, tightens it by closing a loophole that allows inefficient building components to be replaced in-kind. Essentially, it means that any building components – such as light fixtures, windows, and ventilation fans – that are newly installed must meet existing energy codes. Because code-compliant equipment is already required for new construction and major renovations, this will add virtually no cost and requires the use only of equipment that is widely available. A provision in the bill makes clear that any parts of the building that are not being renovated – such as an entire ventilation system if you are just changing a fan – do not have to be upgraded. But it does mean that, as renovations take place, more of our older buildings will have increasingly efficient systems.

Intro 476-A would require all buildings over 50,000 square feet annually to fill out an online benchmarking survey relating to the building's energy consumption, the results of which will eventually be available to the public as part of the Finance Department's annual tax assessment roll. This will allow prospective purchasers and tenants to take efficiency into account when doing due diligence on a given building. This public disclosure is a critical component of the bill, because it works with the market, allowing building owners and tenants to make choices on their own, but ensuring that building owners may have to compete on the basis of energy efficiency. Across the US, cities and states are actively making energy information more attainable. The State of California, Washington DC, and smaller municipalities have adopted similar annual benchmarking and disclosure legislation.

The benchmarking tool, which was developed by the US Environmental Protection Agency and is available online for free, takes into account building type, occupancy type,

hours of usage, and energy consumption to understand how efficient a given building is relative to other buildings in the United States, given its specific weather conditions and the way in which its occupants use it. Filling in the benchmarking tool requires only basic information about the building's occupancy and its energy bills – which should generally be available to building managers. For the average building, we expect this to be no more than a few hours' work the first time, and less after a manager knows how to do it. The City is holding ourselves to a higher threshold by benchmarking all buildings greater than 10,000 square feet and is already leading by example by benchmarking two-thirds of our public schools.

476-A has several important caveats. First, residential building owners and managers will not be required to obtain tenants' energy bills if they are individually metered; requiring such would be a major imposition on both tenants and landlords, and we envision that a New York City specific overlay to the EPA tool will adjust for residential buildings that only have data for central systems. Second, for each building class, there is one year in which the data will be required, but it will not be disclosed to the public; the intention of this is to allow the building owner an opportunity to get the data correct, and understand and fix any inaccurate results. Third, the bill includes a provision to temporarily postpone the public disclosure of the benchmarking results for certain building classes for which the EPA tool's accuracy is currently under question. Finally, it requires that the Department of Environmental Protection work towards the direct uploading of water consumption data, so landlords do not need to have their water bill available in order to fill it out.

The third bill, Intro 973, requires that all buildings over 50,000 square feet upgrade their lighting to meet code at least once by 2022, and as part of any major renovations until then. Lighting within residential units will not be impacted because the energy code does not address lighting in these spaces. Given that lighting technology has advanced so quickly, the modernization of lighting that is more than 7 years old virtually always pays for itself in a period of 18 to 24 months. It also will achieve considerable energy reductions since energy used for lighting constitutes almost 20% of our overall building consumption.

The fourth and final bill of the Greener, Greater Buildings Plan, Intro 967, addresses the imperative need for continuous energy upgrades in our existing buildings. The bill concentrates only on the central systems of buildings and prescribes a process for energy improvements every ten years. The process begins with an energy audit, which is a professional assessment of the energy efficiency improvements that could be made, along with an analysis of the cost and savings from each one. The building will have three years to complete those improvements, including both capital investments and tune-ups, that pay for themselves within seven years. By investing in central systems the owner will reap the financial benefits of the energy savings.

This approach was selected because all existing buildings are different; a one-size-fits-all solution will not work. Setting a particular goal in terms of energy use per square foot does not make sense since some buildings were designed and built to be more efficient

than others, nor does it make sense to require a certain energy reduction target for all buildings. A twenty percent reduction for one building that is poorly performing could be achievable and cost effective, but for an already well performing building it might be expensive or even unachievable. However, implementing building specific measures that have been calculated to have a quick payback always makes sense. Whether it is a seven or five year payback, a 14-20% return on investment is always good business.

Although energy efficiency improvements that pay for themselves make economic, not just environmental, sense, we recognize that some building owners may not have the financial resources to undertake these improvements, even if they think it will help their bottom line over time. In some cases, a building's existing condition makes it difficult for an owner to pay property taxes, water charges, or make emergency repairs, let alone tackle longer-term capital improvements. In other cases, a building's limited capital reserves or high level of debt may preclude the owner from taking on additional financing to pay for energy efficiency improvements. To address these challenges, the bill allows building owners to receive a one-year extension to meet the requirements, subject to renewal should the building's financial condition not improve.

We also know, however, that these buildings' financial conditions stand to benefit greatly from energy efficiency improvements, as they lower a building's operating costs. To begin to help owners overcome financial challenges in making energy efficiency improvements, the City has proposed to use $16 million in federal stimulus funding to establish a pilot revolving loan fund targeted directly to financially distressed buildings. Loans will be made at below-market rates, with owners repaying the loans with the savings accrued from reduced energy costs. The fund will also serve as an important model to private financial institutions by demonstrating a lending model based on energy savings, thereby encouraging the private sector to replicate this type of loan fund.

In addition, this past August and September, NYSERDA and the state's investor owned utilities filed proposals to the State's Public Service Commission to provide financial assistance to residential and commercial buildings who participate in either NYSERDA or utility run energy efficiency programs. A small number of "fast-track programs" have been approved, but most of these programs are not what we think NYC needs most. The City is still waiting on the Public Service Commission to assess the remaining proposals and to allocate funding for those that are approved. Between NYSERDA, Con Edison, and National Grid, the total energy efficiency program funding requested for 2009 through 2011 is over $1 billion. In 2007, the total state funding was $175 million a year. Of the $1 billion, approximately $275 million is tailored to best meet New York City's needs. During the upcoming months the City will put pressure on the PSC to move quickly to approve the additional funding for energy efficiency and ensure that the increased funds are allocated proportionately to programs that are relevant for New York City.

Together, these four pieces of legislation will create 19,000 construction-related jobs over the next 12 years such as auditors, retro-commissioners, retrofitters and a variety of support services. It is essential that both new and existing workers are well trained and

learn the necessary skills to fill these green jobs. To achieve this goal, the City has created a working group in partnership with the Real Estate Board of NY, Central Labor Council, 32BJ, and the Building Trades Council to identify the training, certifications, and experience needed by workers to complete the work to be created by the Greener, Greater Buildings Plan as well as existing training programs and any skills or training gaps that may exist. This City will work with USGBC, CUNY, NYSERDA, organized labor, and others to establish suitable curricula and certifications for workers to ensure that the work they complete is of the highest quality.

In close cooperation with the Council, we have been working on these bills for nearly two years. This package of legislation is the largest single step we can take towards meeting our 30 by 30 goal. Together, these four bills are anticipated to reduce greenhouse gas emissions by 5%, generate $125 million in annual wages, and save New Yorkers $75-million in energy costs.

We recognize that these are complicated issues, and – in response to stakeholder comments over the past year – have made many provisions and allowances. We also recognize that there are remaining, legitimate concerns that we are working on. The qualification for auditors and those performing retro-commissioning must be clarified, either in the bill or in the rulemaking that follows; for those roles, we must strike a balance that ensure that they have all the relevant expertise, but also allow the opportunity for many New Yorkers to undertake those new careers. We know that some provisions in leases and in rent regulation laws could allow landlords to pass along the capital cost of projects that, by definition, will only be required if the landlord would save money on energy; that would be a violation of the principle that investments should be made only when there is a return on investment. We are committed to working through that issue and ensuring that tenants do not pay for improvements that pay for themselves. We also recognize that many in the real estate community are concerned about the process by which retrofits would become required, and the provisions for determining which buildings are financially distressed. We are committed to continuous improvement of our building stock, but we are also committed to considering fully any serious proposals for alternative approaches that would achieve the goal of continuous energy efficiency improvement.

We look forward to our continued collaboration with the City Council on developing sound green building policies, including the refinement of the four bills discussed today. Thank you for the opportunity to testify. I am available to answer any of your questions.

FOR THE RECORD

Testimony of Con Edison Company of New York, Inc.
at the New York City Council
Environmental Protection Committee Hearing
June 26, 2009

Good morning Chairman Gennaro and members of the Environmental Protection Committee. My name is John Banks and I am the vice president of Government Relations for Con Edison. Thank you for the opportunity to address the package of bills on energy efficiency before the committee. Reducing energy helps the environment, preserves natural resources and keeps costs down.

Con Edison is supportive of energy efficiency initiatives. We have a dedicated energy efficiency team on staff and have implemented a number of initiatives to help our customers learn more about available energy efficiency programs. We encourage people to visit www.coned.com and review our energy efficiency pages and visit the "Power of Green". Recently, we launched an interactive video game for customers to play to learn more energy savings tips for the home.

In addition, we have a Facebook page which can be found by searching the "Power of Green." By media estimates, more than 70 million Americans are on Facebook, which is a vast audience for us to communicate with. Using social media allows us to bring the message of energy conservation and efficiency to our existing customers, and to those who might one day make New York City home.

We have programs for business owners to help them improve their energy efficiency, including free energy surveys for customers with under 100kW of demand. Other business customers may be eligible for our targeted demand side management program, and we encourage customers to review our Web site and see what programs are available in their area.

Representatives from Con Edison have been working with the administration and have participated in the Green Codes Task force. We have reviewed the bills before the committee and have some suggestions for the committee to consider.

One of the recommendations of the Green Codes Task force was the replacement of all fluorescent T12 lamps and magnetic ballasts throughout the City's Class A office space. We believe that 25-30 percent of the existing buildings could upgrade to high efficiency fluorescent T8 lamps and electronic ballast systems, with an energy savings of 25 percent and an additional 30- 40 percent when simple energy controls are implemented. We believe that the implementation of this recommendation would generate significant energy efficiency improvements without the need for costly energy audits on buildings.

It is also important to note that requiring office, loft, industrial and residential occupants to report consumption to building owners, as required by Intro. 476, may not generate useful data on a building's overall energy efficiency. Usage patterns by occupants will vary, and a prior occupant's use of electricity and gas may not be indicative of a future occupant's use. Appliance usage, individual behaviors, and work hours will all have an impact on an individual's consumption. In non-residential premises, the differences between occupants' usage may be more significant.

Con Edison will continue to work with the Council and with the Mayor's office as these bills move forward. Con Edison is an integral part of New York City and we appreciate the opportunity to help make our city a greener one. Thank you.

AIA New York Chapter
The Founding Chapter of The American Institute of Architects

American Institute of Architects New York Chapter (AIANY)
Quotes in response to the proposed Energy Conservation Initiates related to the Greener, Greater Buildings Plan
New York City Council Environmental Protection Committee Meeting
June 26, 2009

The American Institute of Architects New York Chapter is a member organization of more than 4,300 architects and community members. AIA New York Chapter applauds the City Council Environmental Protection Committee and their proposed bills Int. No.967, Article 308 (Audits, Retro-commissioning and Retrofits of Building Systems); Int. No. 476-A, Article 309 (Benchmarking Energy and Water Use); Int. No. 973, Article 310 (Required Upgrade of lighting Systems); and Proposed Int. No. 564-A, Article 1001 (Enhancement and Update of the New York City Energy Conservation Code). **We are strongly in favor of the proposed legislation for many reasons:**

The legislation improves the existing city:
"What is important about these energy code initiatives is that the focus has shifted from new construction to existing buildings. Due to old technology, a lack of maintenance and inertia, existing buildings cause the bulk of the problem in most urban centers. This is a tremendous opportunity for New York to be the global leader on retrofitting existing buildings to reduce global warming."

--Pat Sapinsley, AIA, LEEP AP, Good Energies
Co-Chair of the AIA New York Committee on the Environment

The legislation establishes a system of regulation:
"The City Council should be commended for this ground-breaking legislation. Most notable are the bills requiring building owners to conduct energy audits and to benchmark their energy and water usage. Having these systems in place will ensure that buildings are renovated and retrofitted effectively, and that patterns of consumption are modified accordingly."

--Margaret Castillo, AIA, LEED AP, Helpern Associates
VP for Public Outreach, AIA New York Chapter

The legislation challenges New Yorkers to rise to the occasion:
"There are nearly one million existing buildings in New York City, and frankly put, in terms of carbon footprint, they are the gorilla in the room. Now is the time for change. Although certain aspects of these bills will prove challenging in the short term, they pale in comparison to the long term implications of inaction. Remember that we are only reducing the amount of pollution we add to an already overburdened environment. These are critical first steps in a much longer process."

--Charles Griffith, AIA
Co-Chair of the AIA New York Committee on the Environment

The legislation brings energy and design together:
"Measurable energy improvements and heightened awareness of design are two things this city critically needs. This legislation brings them together: design matters, and energy re-design is crucial to the future of our city. During this economic downturn, as new structures are not being built at a boom-time pace, it's more important than ever to look towards the future in the existing built fabric of the city."

--Rick Bell, FAIA, Executive Director
AIA New York Chapter

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ACEC New York

American Council of Engineering Companies of New York

June 24, 2009

FOR THE RECORD

Hon. Christine Quinn
Speaker
NY City Council
City Hall
New York, NY 10007

Hon. James Gennaro
Chair
Committee on Environmental Protection
NY City Council
City Hall
New York, NY 10007

Dear Speaker Quinn and Council Member Gennaro:

The American Council of Engineering Companies of New York/Metropolitan Region ("ACEC New York") is a New York-based trade association representing leading professional design services firms. Founded in New York City in 1921, we are one of the oldest continuing organizations of professional consulting engineers in the U.S. ACEC New York represents 230 member firms throughout New York State that collectively employ more than 17,000 people statewide, with a concentrated presence of firms located within the five boroughs of New York City.

ACEC New York is dedicated to promoting growth of the industry through the education of our members, promotion of cooperative relationships, and by addressing specific areas of concern on behalf of our membership. It is to this end that we are writing to you today.

We are in the midst of an extraordinary period in which environmentally and socially responsible design has received unprecedented support in the general public, the business community, and by government officials. ACEC New York, as the voice of this state's leading professional design consultants, echoes this support and we applaud the City Council (the "Council") for its consideration of the various "green" bills before it, specifically Intro 476-A, Intro 564-A, and Intro 973. In addition, we find the Council's efforts with respect to Intro 967, Audits and Retrofits of Building Systems, to be laudable, and we respectfully offer the following suggestion to further improve upon a very worthwhile measure.

The term "Energy Professional" in Intro 967 would be best clarified by requiring, in the definition of "Energy Professional," that any such individual must be registered or licensed as a design professional. This designation would not only give effect to the

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intent of the legislation by requiring that such individuals truly are competent and skilled professionals, and are licensed as such, but would also provide the Council and the City with peace of mind, knowing that it would have recourse against any Energy Professional by virtue of the registered design professional's licensure status. Without such clarification, the legislation leaves the door open to potential exploitation by various "fly-by-night" firms and individuals performing audits and retrofits on building under the purported title of Energy Professional.

ACEC New York supports the Council's efforts to advance "green" initiatives, and we appreciate this opportunity to provide our comments on such important measures. If we can answer any questions or be of further assistance, please contact me at 212 682-6336 or hannah@acecny.org.

Sincerely,

Hannah O'Grady
Deputy Executive Director
ACEC New York

Michael Richter, Partner, Environmental Capital Partners LLC
Co-Chair, Sierra Club National Advancement Council
Former All-Star goalie, New York Rangers

Testimony to the New York City Council in favor of:
New York City Energy Code - Int 0564-2007;
Lighting Upgrades - Int 0973-2009;
Benchmarking - Int 0476-2006;
Audits and Retrofits - Int 0967

FOR THE RECORD

June 26, 2009

Dear Council Members:

As an athlete, I have long been sensitive to how environment, health, and performance are connected to each other. In the last Olympics, China halted construction and limited vehicle traffic in Beijing so that athletes could breathe well enough to compete. Today, China is investigating how more efficiency building practices will result in carbon reduction in the environment. We should go further than the Chinese and aggressively improve our buildings for a host of reasons, including health, strategic defense and economic stimulation. The four bills we are discussing today will take us quite a way in that direction.

As a clean tech investor, I appreciate how doing good—for our health and for the environment—must also be profitable. My company is keen on building-efficiency because we believe it will result in the greatest carbon reductions at the lowest cost; building-efficiency pays for itself and it uses already extant technology.

Buildings are responsible for 41 percent of our energy consumption and 43 percent of our carbon emissions.[1] Building-efficiency is the low-hanging fruit in reducing our

[1] *Toward a Climate-Friendly Building Environment*, Pew Center on Global Climate Change, June 2005. (In dense cities such as New York, the building stock accounts for a considerably higher percentage of CO_2 emissions)

environmental carbon load. Improving buildings and appliances could get us a quarter of the way to where we need to go in carbon abatement. [2]

These measures also make good business sense. According to a McKinsey & Company study, four of the five most cost effective ways to cut overall carbon emissions are building retrofit measures: insulation, lighting, air-conditioning and water heating.[3] The initial up-front costs should be recovered many times over, over the life of a building.

Some say, 'we should not pursue this legislation in the current economic environment.' They are mistaken. This is absolutely the right time. The proposed legislation will help develop an efficiency industry that will strengthen our own, New York economy. Lighting upgrades and boiler replacement can not be out-sourced. The jobs this legislation will create will be local jobs.

The energy savings will mean much to those who are struggling to make ends meet. Many people of modest means end up paying as much as 20% of their incomes on energy costs. Furthermore, the health benefits and savings in medical expenditures will be especially important in poorer, urban communities where asthma rates have reached epidemic proportions.

Some ask, 'why do we need regulation; why can't we leave it to the market'? Because in this case the market it too slow. We need this legislation to help create critical mass. With known demand, new businesses will form. These businesses, in turn, will make it easier and cheaper for building owners to take steps that will save them money and improve the productivity and well-being of residents and workers. This legislation will also help create the clarity that investors, like my company, will need to enter the market. This legislation will prime the pump the market will then be able to keep pumping.

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[2] "Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?" McKinsey & Company, December, 2007.
[3] Ibid.

A vast majority of the buildings in New York City will still be standing in two decades. If they keep leaking energy at current rates, our energy costs will sky-rocket. We will burn more coal, filling the atmosphere and lungs with carbon and other toxins; and the demand for that coal will result in the tragic removal of mountaintops in the process. We will burn more oil, increasing our strategic vulnerabilities, and continuing to degrade the health and quality of life of New Yorkers.

This is an opportunity for New York City, once again, to be a world leader. We were among the first to institute a smoking ban. Now cities everywhere are copying us. We can do the same in building-efficiency. In ten years everyone will say, 'but of course you should do this!' A watt of energy not used is the cheapest, cleanest energy we can buy.

I urge you to pass all four pieces of the proposed legislation as they are each crucial to getting us where we need to go. Audits and Retrofits (0967) are especially important, as they will be the most powerful tools to improve our building-efficiency. These measures will more than pay for themselves in the medium and long run.

Thank you for your consideration.

nationalgrid

FOR THE RECORD

June 26, 2009

Councilman James Gennaro
Chairman Environmental Protection
Council Chambers
City Hall
New York, NY 10007

Dear Councilman Gennaro:

On behalf of National Grid , I would like to commend New York City and specifically the Environmental Protection Committee under your leadership for their commitment to energy efficiency and climate change mitigation.

National Grid is committed to our energy efficiency goals and today's bills that encourage energy audits, energy efficiency investments, benchmarking and the creation of an energy code are major steps in reducing the city's carbon footprint and creating a more environmentally friendly New York. Our company is focused on creating cost saving energy efficiency programs that will help New York City become a leader in building a clean and sustainable economy.

National Grid applauds the City Council for demonstrating the power of action through this landmark legislation. We look forward to continuing to work with the city to help them achieve their ambitious energy savings goals.

Sincerely,

Eileen Cifone
Manager,
New York City Government Relations

Testimony of Alexandra Sullivan, Program Engineer
ENERGY STAR Commercial and Industrial Branch
United States Environmental Protection Agency

Before the New York City Council, Committee on Environmental Protection
Proposed Int. No. 476-A : A Local Law to amend the administrative code of the city of New York, in relation to benchmarking the energy and water efficiency of buildings.
June 26, 2009

Chairman Gennaro and Members of the Committee –

Good morning. Thank you for the opportunity to join you today to discuss the important energy and environmental issues before the committee, particularly Proposed Introduction 476-A. We are pleased to be here as the New York City Council shows leadership as the first in the country to propose energy benchmarking for both residential and commercial buildings. We believe that benchmarking the energy use of commercial and residential buildings is a critical step in the path to superior energy management and will help deliver important environmental benefits for residents of the City and the global community. I know you are all well aware of the many challenges related to increased energy use facing our nation, and New York City, and you are to be commended for identifying existing buildings as a major opportunity to reduce energy consumption in the city.

Energy efficiency offers one of the lowest cost solutions for improving energy reliability and security, reducing our energy bills, and addressing the important issue of global climate change—all while helping to grow the economy. Since its inception in 1992, the ENERGY STAR program has helped individuals and organizations nationwide find cost-effective, energy-efficient solutions. Americans, with the help of ENERGY STAR, prevented about 43 million metric tons of greenhouse gas emissions in 2008 alone - equivalent to the annual emissions from approximately 29 million vehicles - and saved more than an estimated $19 billion on their utility bills.

For more than a decade, EPA, through ENERGY STAR, has worked with tens of thousands of building owners and managers to reduce energy use in buildings. Using the lessons learned from working with these individuals who are on the front lines addressing our nation's energy challenges, EPA tailors easy-to-use tools and cost-effective solutions through ENERGY STAR to help businesses and other organizations reduce energy waste in buildings. We provide objective information for buildings of all types, sizes, and functions, and our tools are used by offices, hospitals, schools, retailers, hotels, congregations, and many others. The cornerstone of the ENERGY STAR program for buildings is energy benchmarking. Simply put, you can't manage what you don't measure, and having an accurate understanding of energy performance in buildings is the first step to identifying and implementing effective measures to increase efficiency.

EPA has developed Portfolio Manager to assist building owners and managers to measure and assess energy use in a standardized way. Portfolio Manager is an interactive energy management tool that is referenced in the proposed bill 476-A as the mechanism by which building owners in New York City will benchmark their energy performance. You can rest assured that Portfolio Manager is well-suited for this type of use. It is a free tool that allows users to assess and track energy and water consumption for a single building or across an entire portfolio of buildings in a secure on-line environment. A little time spent entering basic facility and utility bill data into Portfolio Manager allows owners of all types of buildings to:

- assess energy and water use and set a baseline against which improvement can be measured
- identify under-performing and top-performing buildings to prioritize energy efficiency projects
- verify efficiency improvements
- understand the carbon emissions associated with a building
- obtain data to support mortgage, sale, and/or lease transactions
- document performance in energy service contracts
- communicate energy performance with tenants/customers/general public.

There is growing national interest in benchmarking energy use as a way to spur and measure improvement in buildings. National associations such as the Building Owners and Managers Association, the American Society of Healthcare Engineers, the National Restaurant Association, and others are encouraging, actually challenging, their members to assess the energy use in their buildings as a first important step toward improvement. Through 2008, organizations of all types have used Portfolio Manager to benchmark the energy performance of over 80,000 buildings and more than 11.5 billion square feet of commercial space across the country. We estimate that about 40 percent of the nation's office space - including banks - has been assessed through Portfolio Manager. It has been our experience that understanding and communicating the energy performance of buildings is critical to finding energy waste and improving efficiency. Portfolio Manager provides an objective and standardized way to do this.

Here, in the New York City metropolitan region (based on the Designated Market Area or DMA), more than four thousand commercial buildings representing over 1 billion square feet of space have already benchmarked energy use with Portfolio Manager. Usage of Portfolio Manager for energy benchmarking is also high in other major U.S. metropolitan areas, with both Chicago and Washington, DC regions at over 600 million square feet each, and the Los Angeles region at nearly 500 million square feet. Perhaps more important, benchmarking with Portfolio Manager has become a key part of standard business practices for a number of the largest building owners and management companies in the U.S. Companies such as CB Richard Ellis, Marriott, JCPenney, school districts around the country – including New York City's public schools – and many others now require benchmarking of all buildings as a key step in their efforts to reduce energy use and their carbon footprint.

The popularity and success of benchmarking with ENERGY STAR continues to grow dramatically. In fact, from December 2007 to December 2008, the total number of buildings benchmarking energy use in Portfolio Manager increased by nearly 35 percent and the square footage of space increased by 50 percent. We believe this growth is due to several factors, including: growing public and private concerns with climate risk;

increasing energy prices; increased consumer awareness of the ENERGY STAR program; recognition of EPA as a trusted and unbiased authority on energy efficiency; and EPA's commitment to continually upgrading the tool and adding new user-friendly features. For example, a new partnership with energy information service vendors and utilities allows for the automatic, electronic transfer of utility data, eliminating the need for manual entry by the building representative. There is also flexibility for building owners to share information with others through an online feature, which may be helpful in thinking about the implementation of the reporting provisions of proposed Bill 476-A.

While most of what I have described so far applies to commercial buildings, there is growing interest in the real estate community for tools to allow similar benchmarking for multi-family high-rise residential buildings. Many companies who are benchmarking office or other properties using Portfolio Manager also own residential properties and are interested in including these properties in their benchmarking activities. And now New York City, as well as several other cities across the country, have expressed a similar interest in being able to include residential buildings in Portfolio Manager as part of the energy efficiency solution. To respond to this growing interest, I am pleased to report that owners and managers of multi-family high-rise residential buildings can now track energy use and associated green house gas emissions of their facility operation in Portfolio Manager. Also, in the Fall of 2009, EPA will launch a national performance rating for places of worship.

New York City can lead the way to a new standard for tracking and disclosing building energy use. The City has the opportunity to be among the first to require benchmarking of existing private commercial buildings, to extend the requirement to large residential buildings, and to require reporting and public disclosure of energy use. But while New York City may be a leader in this area, the City will be continuing a rapidly growing trend of local and state governments passing legislation that leverages Portfolio Manager and ENERGY STAR offerings to reduce energy use in buildings in their jurisdictions. A range of Portfolio Manager benchmarking requirements have already been passed in the District of Columbia, Austin, Texas, Denver, Colorado, and

West Chester, Pennsylvania; the Minnesota Next Generation Energy Act sets a state goal of 1,000 ENERGY STAR labels for commercial buildings; the states of Ohio and Michigan established Portfolio Manager as the benchmarking tool for state-owned facilities; and California's AB 1103 requires all utilities to maintain commercial building data in a format compatible for uploading to Portfolio Manager and requires disclosure of energy benchmarking data from Portfolio Manager during sale, lease, or financing of a building. We believe the disclosure of energy benchmarking data as required in California and included in Proposed Introduction 476-A, is an important tool that will allow investors and renters to make better informed decisions. These disclosure requirements will ultimately drive owners and operators to improve the energy efficiency of their buildings.

With the benchmarking and disclosure concepts included in Proposed Introduction 476-A, you clearly are in good company. You join leading state and local governments in accomplishing your goals by leveraging the most successful national energy-efficiency program ever in the history of this country. With the concepts being considered in this hearing today, you can raise the bar and set a first-class example for others to follow. Benchmarking the energy use of commercial and residential buildings and the energy efficiency improvements that follow can benefit all New Yorkers by helping to ensure greater energy reliability as well as a higher level of environmental protection.

Thank you again for the opportunity to appear before you today. I'm happy to take any questions.

THE POINT

WHERE COMMUNITY AND CREATIVITY CONNECT.

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FOR THE RECORD

Friday June 26, 2009
New York City Council, City Hall
Greener Greater Buildings Plan Hearing

Testimony prepared by
THE POINT COMMUNITY DEVELOPMENT CORPORATION

THE POINT COMMUNITY DEVELOPMENT CORPORATION is a nonprofit organization dedicated to youth development and the cultural and economic revitalization of the Hunts Point section of the South Bronx. We believe the area's residents, their talents and aspirations, are THE POINT's greatest assets. Our mission is to encourage the arts, local enterprise, responsible ecology, and self-investment in the Hunts Point community. THE POINT is a member of the New York City Environmental Justice Alliance.

In our role as a community development agency, we strive to represent the voices of our communities and communicate needs and solutions that will improve the overall quality of life of our neighbors. With that in mind, we offer this testimony in support of the Greener Greater Buildings Plan and all the accompanying legislation.

We applaud the City's efforts to reduce the energy consumption and carbon footprint of New York City. By now we all know about the damage that has been done to our environment, and the immediate need to take steps towards mitigating and reversing this damage. In New York, where unlike other big cities most of our $C0_2$ comes from buildings instead of cars, focusing on buildings is a great place to start.

What everyone might not know is that, contrary to the popular saying, we don't all breathe the same air. That's because neighborhoods like Hunts Point and others like it are faced with a disproportionate amount of the burdens necessary to run our great city. Waste transfer stations, bus depots, jails, and yes power plants are just some of the facilities prevalent in our neighborhoods. Correcting the system that created these concentrated localized burdens for a public benefit is the hallmark of the environmental justice movement, and it is through this lens that we must view these pieces of legislation.
EJ communities have born the brunt of our excesses. Our neighbors have been the first to be degraded and dumped on, and so we must now be prioritized and be the first to reap the rewards of this welcome attitude change towards our environment.

Green Workforce development training is a solution to so much more than just our environmental issues. In Hunts Point where the unemployment rate is over 24%, this is a fact confronting residents daily. When the estimated 19,000 construction-related green jobs are created, attention needs to be paid to where the workers are coming from. EJ communities have

dealt with the burdens of our polluting economy, and so it is only just that these same communities be the *first* to benefit as we switch to a greener solution. The Greener Greater Building Plan estimates that 2.5 billion square feet of NYC retail will be impacted, and so when this real estate is within the communities I am speaking of, not only should local hiring be prioritized, but mandated to the fullest extent possible.

Similarly, the Green Building Financing plan is a great step to help owners move in the right direction. The bill creates two categories of buildings that will be eligible, including those where the owner may otherwise not be able to pay for the renovations. Again, with a set amount of money available in this plan, the benefits must be prioritized for the neighborhoods that for so long received only burdens with no benefits from the City. We speak not only of Hunts Point but of all communities like it across the five boroughs.

We must also be mindful of potential unintended consequences from this legislation. In low-income neighborhoods rent stabilization is a life line and the only reason that many people are able to stay in their homes. Before the audits and retrofits program is rolled out, it should clearly state that the corresponding upgrades are not eligible criteria for MCI rent increases. We understand that this concern has already been acknowledged and assurances made that fairness will prevail, only an explicit statement saying as much will ultimately put the issue to rest.

Lastly, we could not offer testimony on energy issues in New York City without bringing up the concern regarding peaker plants. We are excited for the Greener Greater Building Plan to be enacted and begin to reduce our energy consumption city-wide. As we do we will lessen the demand for energy from power plants, and thus one day hopefully eliminate the need for the notoriously dirty peaker plants. When this day comes, we hope to see legislation to close these plants and ensure they never return.

In closing we would like thank the City Council and all the groups that worked so hard to create this legislation. We know that other groups will testify today as to the power and breadth of these bills, and so we wanted to focus on certain aspects that we feel could be made even stronger. But it should not be left unstated that the Greener Greater Buildings Plan is an innovative and vital piece of legislation that will benefit all New Yorkers. We commend you for your work on it, and thank you.

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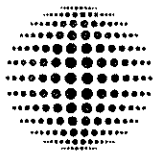

Partnership for New York City

TESTIMONY SUBMITTED BEFORE THE NEW YORK CITY COUNCIL COMMITTEE ON ENVIRONMENTAL PROTECTION

GREEN BUILDING LEGISLATION
Intros 476-A, 564-A, 967 and 973

FRIDAY, JUNE 26, 2009

RAMON CRUZ
VICE PRESIDENT, ENERGY & ENVIRONMENT
PARTNERSHIP FOR NEW YORK CITY

Thank you, Chairman Gennaro and members of the committee, for the opportunity to testify today in support of legislation developed by the City Administration and the City Council for the purpose of making New York City's built environment cleaner and greener.

The Partnership for New York City is an organization of business leaders dedicated to strengthening the economy of New York City and State. Our membership includes many multinational corporations that are global leaders in development, financing and adoption of green technologies and products. These companies understand that reduction in building emissions and more efficient use of energy are not only good for public health and the environment, but also good for business. Many, including Bank of America, the Hearst Corporation and Goldman Sachs, have erected iconic headquarters in the city that meet the most stringent LEED standards. They recognize that such buildings help attract the best employees, reduce operating costs and enhance their corporate brand.

Our membership also includes the city's premiere international real estate firms, which similarly are committed to building and retrofitting their properties to the highest possible standards of energy efficiency and conservation. At the same time, the real estate community is generally concerned about one aspect of the proposed legislation, which is the mandate for audits and retrofits. Compliance

could be difficult for owners of certain older buildings and smaller properties – especially during an economic downturn when building incomes are weak and access to financing is limited. The variations in terms of the leases for commercial properties also make calculation of payback and attribution of costs extremely difficult, particularly where buildings are not sub-metered. We understand that the Council and Administration are working closely with the industry to come up with practical solutions to these issues that still achieve the ultimate goal of full compliance among the city's larger buildings. This will probably require longer phase-in and expanded public financial and tax incentives, including use of American Recovery and Reconstruction Act (ARRA) funds to support this effort.

There are other actions that could complement and facilitate the objectives of the legislation before the committee today. For example, sub-metering would make it easier for building owners to bill tenants according to their energy use, while smart demand response devices could help tenants measure their individual use in order to create strategies to consume energy more efficiently. Also, as current leases expire, owners and tenants should be encouraged to adopt "green lease riders" that would standardize lease terms with respect to allocation of incentives and costs associated with retrofit and energy conservation. This would help to encourage owners to invest in long-term efficiency upgrades and reward tenants with lower energy utilization.

While this is a complex endeavor, the Partnership congratulates the Council and the Administration for positioning New York City as the pioneer in figuring out how to reduce energy consumption and emissions in our urban building stock. We look forward to working together with you to achieve the goal of a long term comprehensive improvement in energy efficiency of existing buildings. Thank you.

June 25, 2009

Scott E. Frank, P.E.
Partner, Jaros Baum & Bolles, Consulting Engineers

My firm (JB&B, in which I am a partner) is a 200 person mechanical and electrical engineering firm based in New York City that designs more than 20 million square feet of commercial and institutional building space each year. We have had the privilege of designing the energy related systems for several of the City's most advanced green buildings, including the recently completed Bank of America Tower at One Bryant Park and all of the projects at the World Trade Center site.

I wish to register my support for four of the bills receiving testimony today:

- Intro 0564-A, New York City Energy Code
- Intro 0973, Lighting Upgrades
- Intro 0476-A, Benchmarking
- Intro 0967, Audits and Retrofits

Relative to two of these proposed bills, I wish to offer the following specific comments:

- Relative to Intro 0564-A, New York City Energy Code:

    - New York City is currently required to utilize the state-wide Energy Conservation Construction Code. However for more than decade, the State has not been responsive in providing required support for issues germane to the Downstate urban building market which in general are very different from those of the many smaller non-urban jurisdictions located throughout the remainder of the state. Specific areas of need include providing formal interpretations, granting variances and enacting appropriate and timely Code updates.

    - Further, there is a fundamental problem with the State Code stemming from a loophole in the State Energy Law that excludes all work performed in existing buildings if less than 50% of any system or subsystem is affected within a 12 month period. Intro 564-A addresses these critical issues.

    - I also strongly recommend that appropriate measures be included in this legislation to enable the City Agency that will be responsible for administering this Code, to devote the resources required to rigorously and successfully administer this new Code. If this bill turns into an unfunded mandate it will not be successful. Since the New York State Energy law was first enacted in 1976, New York City Government took no action of any kind toward administering the Energy Code until 2007 (31 Years later). I personally have been part of the start-up effort with the

Department of Buildings during the last several years in the form of volunteered professional time and have taught training sessions for all of the plan examination staff of the Department. I can tell you first hand, that these professional are interested, dedicated and hard working, but are at the very beginning of a long process in understanding and learning how to administer this technically complex set of energy regulations. In fact, even today they do not even possess hard copies of the second volume of the Energy Code (ASHRAE Standard 90.1) that is applicable to many commercial buildings. They will need significant resources in the form of dedicated expert staff (building on the single staff person they have today) and extensive outsourced training to administer the Code, as well as the ability to provide education, awareness raising and outreach to the industry of practitioners in this City who now all must design buildings and building systems in conformance with this Code.

- Relative to Intro 0967, Audits and Retrofits:

    - While the Audit and Retrofits bill may be the most complex to implement of the four energy bills receiving testimony today, that should not serve as a hindrance to passing this critical legislation. If our City is serious about reducing carbon emissions in the near future (for example as outlined in PlaNYC) a systematic approach for identifying energy conserving opportunities within the existing building stock of this City is fundamental.

    - The audits and retrofits bill is a good start toward this goal. And while most of the details should be left to a Rule making process by a qualified group of New York City experts, there are several critical components that must be included in the law that is passed by this Council.

    - In this regard, once again, I must emphasize the importance of City Government's role in actively administering the requirements of this bill. Building systems are complex (more complex I am convinced, than most people realize), the energy auditing process while eminently doable, also complex (more complex I am convinced, than most people realize), and without rigorous and excellent development of the details and rules for implementing the requirements contained in this bill, the effort will be an abject failure. I specifically suggest that the Department of Buildings be given clear instructions (including tasks for completion with schedule milestones) and (most important) the funding mechanisms to properly support this undertaking, in order to ensure the successful beginning of the process of transforming the energy efficiency of the building stock of the City of New York.

Thank you very much.

Testimony of Sylvester A. Giustino, Director of Legislative Affairs
Building Owners and Managers Association of Greater New York, Inc.

Council of the City of New York

Committee on Environmental Protection

Hearing in relation to Int. No. 476-A, Int. No. 564-A, Int. No. 967 & Int. No. 973

June 26, 2009

Good Morning, Chairman Gennaro and members of the City Council, my name is Sylvester Giustino, Director of Legislative Affairs for the Building Owners and Managers Association of Greater New York, Inc. (BOMA/NY), which represents more than 850 owners, property managers and building professionals who either own or manage 400 million square feet of commercial space. We're responsible for the safety of over 3 million tenants, generate more than $1.5 billion in tax revenue and oversee annual budgets of more than $4 billion.

We commend the Bloomberg Administration for taking the lead in proposing a bold program to make existing buildings more energy efficient. BOMA/NY firmly stands behind the concept of greening our City—and we do that ***every day*** in the buildings we own and manage.

Our members have voluntarily pursued and received LEED, Energy Star and IS4001 certification—the gold standards in energy and environmental conservation whose requirements often exceed the proposals contained in the proposed legislation we are discussing today. To date, more than 50 million square feet of New York City office space has achieved these certifications. Moreover, our members have signed onto the BOMA Market Transformation Energy Plan and 7-Point Challenge; we have challenged our members to take voluntary steps to improve energy efficiency across their portfolios by 30 percent by 2012 in comparison to an average building.

To this end, we are in full support of Int. No.564-A, the creation of a New York City Energy Conservation Code. In addition, we support the aims of Int. No. 973. However we would like to offer some caveats based on our experience. While upgrading lighting during renovations prior to December 31, 2022, the building owner has the option to avoid disturbing asbestos (and other hazardous materials) by circumventing renovating any area containing asbestos. However, if all lighting must be upgraded by December 31, 2022, any area that would otherwise be avoided and thereby remain safe, will have

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to be addressed. Removing asbestos adds a significant cost to any project and since intact/encapsulated asbestos is perfectly safe, we encourage you to add an appeal option that can address these types of situations. Also, the proposed legislation allows for exceptions to upgrading lighting during renovations limited to plumbing, sprinkler or standpipes. We would like to add the renovations of fire systems and HVAC systems to this list of exemptions, as they are in the same category as the others.

We believe that incentives, not mandates, are the best way to encourage owners to make buildings more energy efficient and reduce carbon emissions. Int. No. 967 and Int. No.476-A do not take into account the individual realities of each building's structure and engineering, which only its owner and manager can fully assess.

If enacted, the good intentions of the proposed mandated audits and retrofits bill could have the opposite effect—as law, this bill would be difficult and costly to implement. We are already struggling in a contracting economy and these additional costs, which would be partially absorbed in rentals, will cut into New York City's competitiveness in the marketplace.

In addition, the term "energy professional" is far too vague and appears to give this "professional" the right to dictate changes to our buildings-changes that could be contrary to lease obligations or tenant requirements.

In this tumultuous economic climate, the bill gives no cost and/or investment considerations. The payback of seven years is too long. A 3-to5-year payback would be more economically viable.

The stipulations for energy audits are completely open ended and could lead to extremely costly audits.

With respect to Int. No. 476-A and benchmarking, we believe that building owners should be able to release their benchmarking results at their discretion. The EPA Portfolio Manager standard is an imperfect mechanism that does not take into account all the different building usages in New York City.

We believe that these concerns can be addressed in concert with the City, and we stand *prepared and ready* to lend our expertise and insight to the "nuts and bolts" of making a greener New York a reality. BOMA/NY knows that by making buildings more resourceful is the single biggest step New York can take to achieve its sustainability goals and remain competitive as the business capital of the world.

We look forward to working with the Bloomberg Administration, environmental advocates and the City Council to refine this plan to ensure that property owners across all asset classes can capture efficiency opportunities in the most cost-effective and reasonable way.

Trinity's Testimony for City Council Hearing
June 19, 2009

Hello. My name is Emily Loyd and I am the Chief Operation Officer for Trinity Real Estate, which is part of the Parish of Trinity Church. We own and operate approximately 5 million square feet of class B commercial space, which is concentrated in the Hudson Square area in Manhattan. Trinity is committed to environmental sustainability in its role as a property owner as well as in its role as a member of the Anglican Communion, which has embraced environmental sustainability as one of its millennium goals. We've supported the goals of PlaNYC, and are actively engaged in reducing our emissions by 30% by 2030.

Environmental sustainability is an issue about which the broader Hudson Square community cares deeply. The new Hudson Square Business Improvement district, which Trinity helped create, plans to promote sustainability in the public realm. Our creative commercial tenants also care about this issue, and we work with them on strategies for sustainable fitouts in their office space.

While Trinity is committed to environmental sustainability from a moral and civic perspective, we are also aware that our real estate supports our churches and charitable work. Consequently, we are very mindful of the bottom line. We look for investments that make sense environmentally *and* economically, and we have evaluated the proposed legislation accordingly.

Trinity supports the goals of the four pieces of proposed legislation. We wholeheartedly support the substance of the lighting bill, the benchmarking bill, and the bill regarding the energy code. We believe that the requirements of these bills will provide concrete environmental benefits at a reasonable cost to owners.

Comprehensive legislation should also address audits and retrofits. We support legislation that requires mandatory audits of existing buildings so owners can identify opportunities that make sense from both an environmental perspective and an economic perspective.

Ultimately, we believe that retrofits of base building systems should also be required. Unfortunately, the structure of the commercial leases representing most of Manhattan's office space are not conducive, as they should be, to encouraging owners to retrofit their buildings. Under most office leases, capital improvements paid for by owners would provide energy savings only for their tenants because tenants pay the operating expenses. within their spaces.

The realignment of incentives with regard to capital improvements and paybacks thus strikes us as one of the keys to garnering support for mandatory retrofits. It may be incumbent upon players within the real estate industry to create a structure where incentives are aligned. Once they have had the opportunity to do so, mandatory retrofits may well be appropriate. can be considered on their merits. leases benefit both ~~tenant~~ building owner and tenant. without the concerns that they currently trigger.

In sum, we support three bills as written, as well as mandatory audits today, with an eye toward mandatory retrofits in the future.

Energy Audit/ Retrofit Cost Benefit Analysis Process

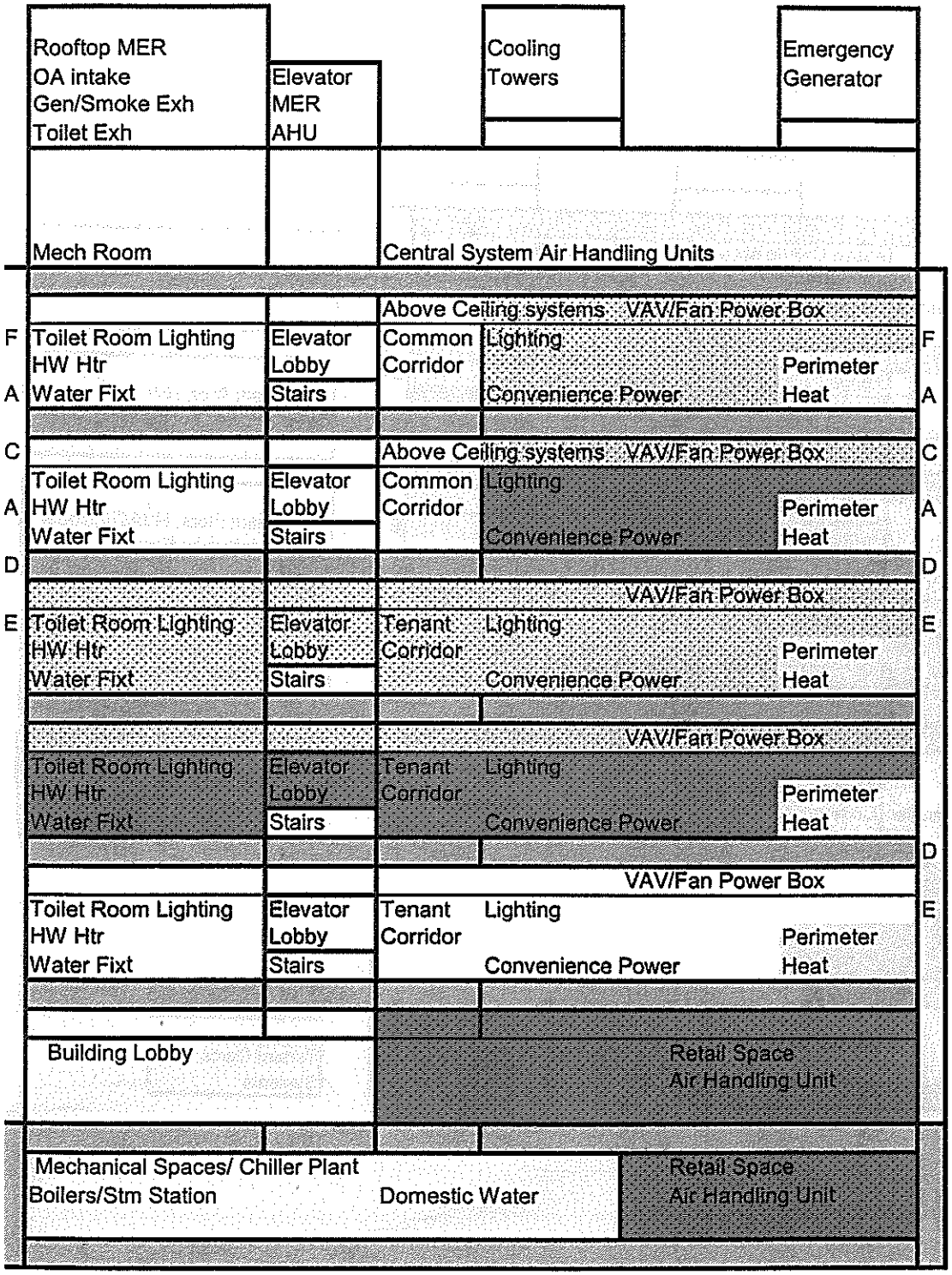
Stage	Expertise
I	Documentation of Existing Systems
	Mechanical Engineer
	Electrical Engineer
	Architect
	Building Staff (existing as-builts and plans)
II	Analysis of Performance of Existing Systems
	Engineers/Architects with
	Forensic/ Operational Expertise
	Building Operations Staff for Operating Procedures
III	Model Performance of Building
	Energy Modeling Expert
	Survey of Physical Attributes
	Engineer's input on U values
	Building Staff to define control sequences, tenant systems and hours of operation
IV	Propose retrofits
	Engineers/Architects with
	Forensic/ Operational Expertise
V	Model Impact of a Possible Retrofits
	Energy Modeling Expert
VI	Prepare Cost Estimate for Retrofits
	Trade Contractors/ Trade Estimators
	Equipment Suppliers
	Building Operations Staff for Operations Costs
	Construction Manager/ Lead Estimator
	Architects/ Engineers for Fee proposals
	Finance Staff/Banker for Financing
	Attorneys to review system ownership and rights
VII	Project Energy Cost Savings
	Energy Modeling Expert
	Building Operations Staff for Operating Implications
	Soothsayer to project future energy costs
	Utility expert to understand rate/billing structures

Energy Audit/ Retrofit Cost Benefit Analysis Process

Stage	Expertise
VIII	Cost/ Ber Energy Modeling Expert
	Building Operations Staff for Operating Implications
	Attorney to Parse Leases
	Financial Analyst to Model Savings Benefit Flow
	Accountant to Address GAAP Issues
	Estimators Etc from above to evaluate 7 year payback
	Leasing Agents to Assess Impact on Marketability
	Owner to make business judgments
IX	Document, File, and Approve Retrofits
	Architects
	Engineers
	Contractors
	Owner
	Tenant
	Auditor's validation of conforming documents
X	File Audit/Retrofit Report
	"Energy Auditor"
XI	NYC Department of Buildings Review/ Approval
	Department of Buildings Plan Examiner
	Reviews, Confirms, and Approves All of the Above
	If Rejected or Challenged, Reenter Process Somewhere Above
XII	Implement Retrofits
	Architect of Record
	Engineer of Record
	Special Inspectors
	Contractors
	Building Staff
	Energy Auditor for Project Oversight
XIII	Verification of Completion and Compliance
	Architect of Record
	Engineer of Record
	Special Inspectors
	Energy Auditor
	DOB Inspector to Audit/ Sign Off All of the Above

Case 1: Central Plant with Central Air Distribution

Variations:
Central Hot Water
Perimeter Heat in Ceiling with Fan Powered Boxes



Multitenant floor, HVAC included
Electric Inclusion Rate

Multitenant floor, HVAC included
Tenant Power Submetered

Full Tenant Floor, HVAC included
Electric Inclusion Rate

Full Tenant Floor, HVAC included
Tenant Power Submetered

Vacant Space

Landlord Pays
Energy Costs

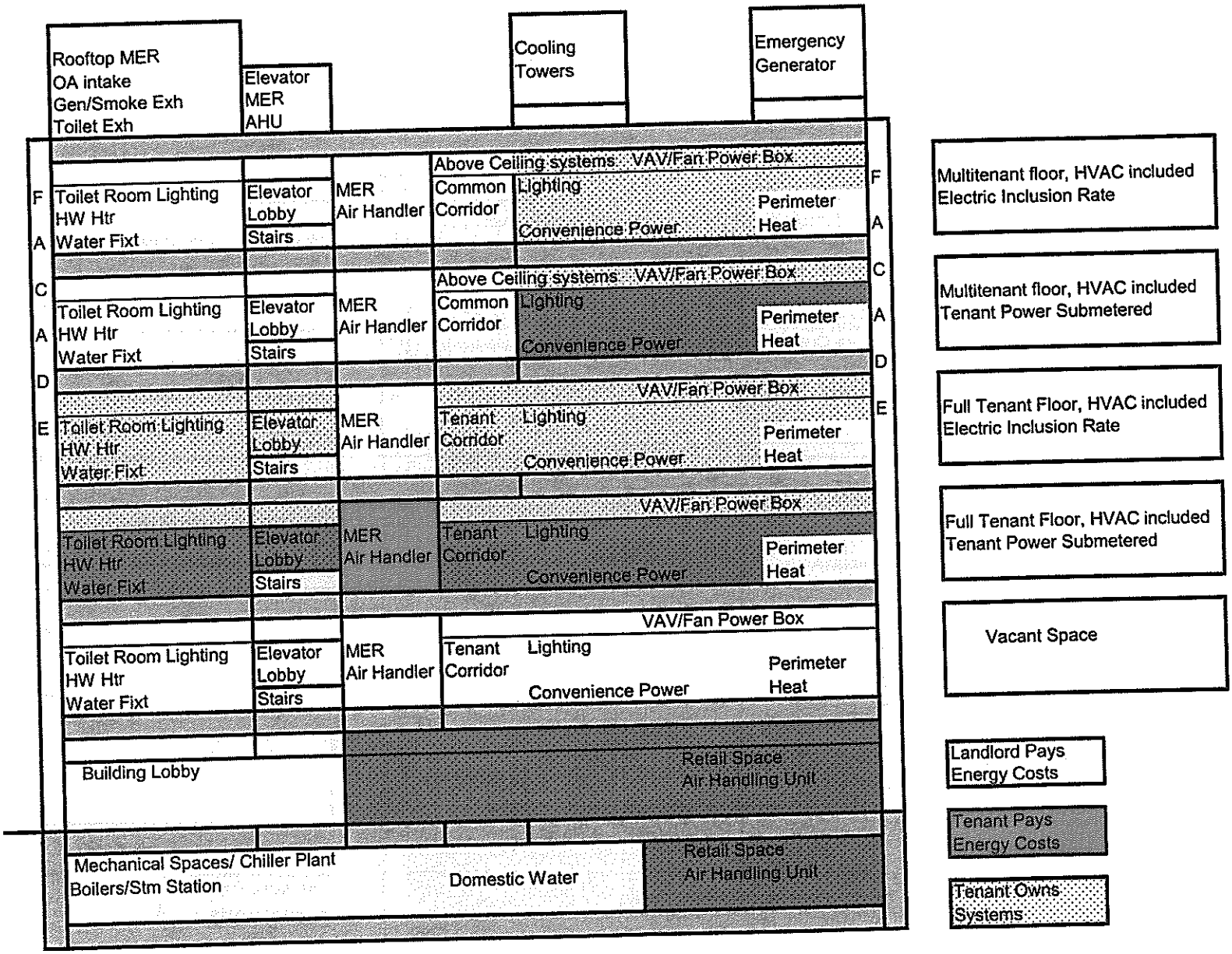
Tenant Pays
Energy Costs

Tenant Owns
Systems

Case 2: Central Plant with Floor-by-Floor Air Handling Units

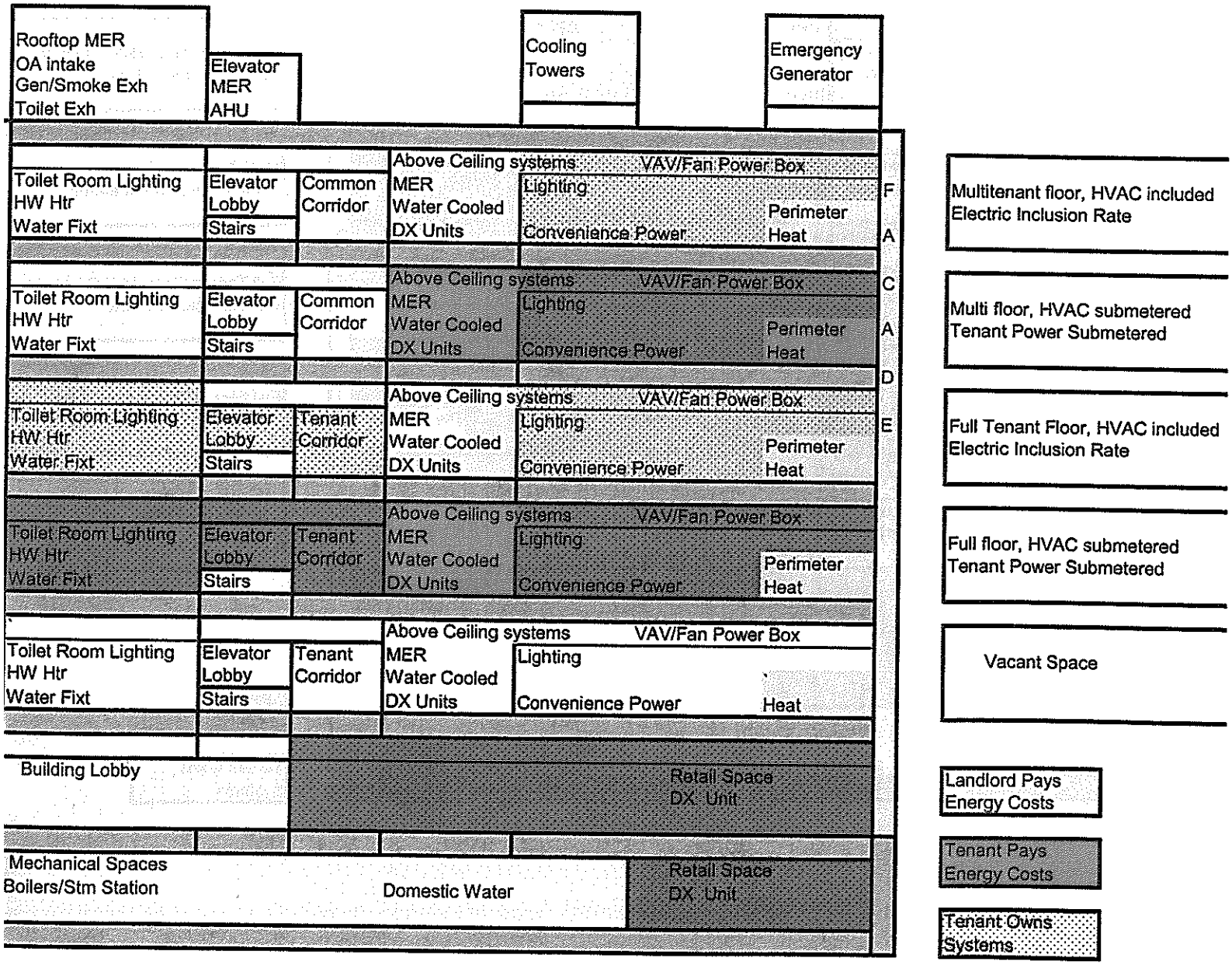
Variations:

Central Hot Water
Perimeter Heat in Ceiling with Fan Powered Boxes



Case 3: Packaged Water Cooled DX Floor-by-Floor

Variations:
Central Hot Water
Perimeter Heat in Ceiling with Fan Powered Boxes



Multitenant floor, HVAC included
Electric Inclusion Rate

Multi floor, HVAC submetered
Tenant Power Submetered

Full Tenant Floor, HVAC included
Electric Inclusion Rate

Full floor, HVAC submetered
Tenant Power Submetered

Vacant Space

Landlord Pays
Energy Costs

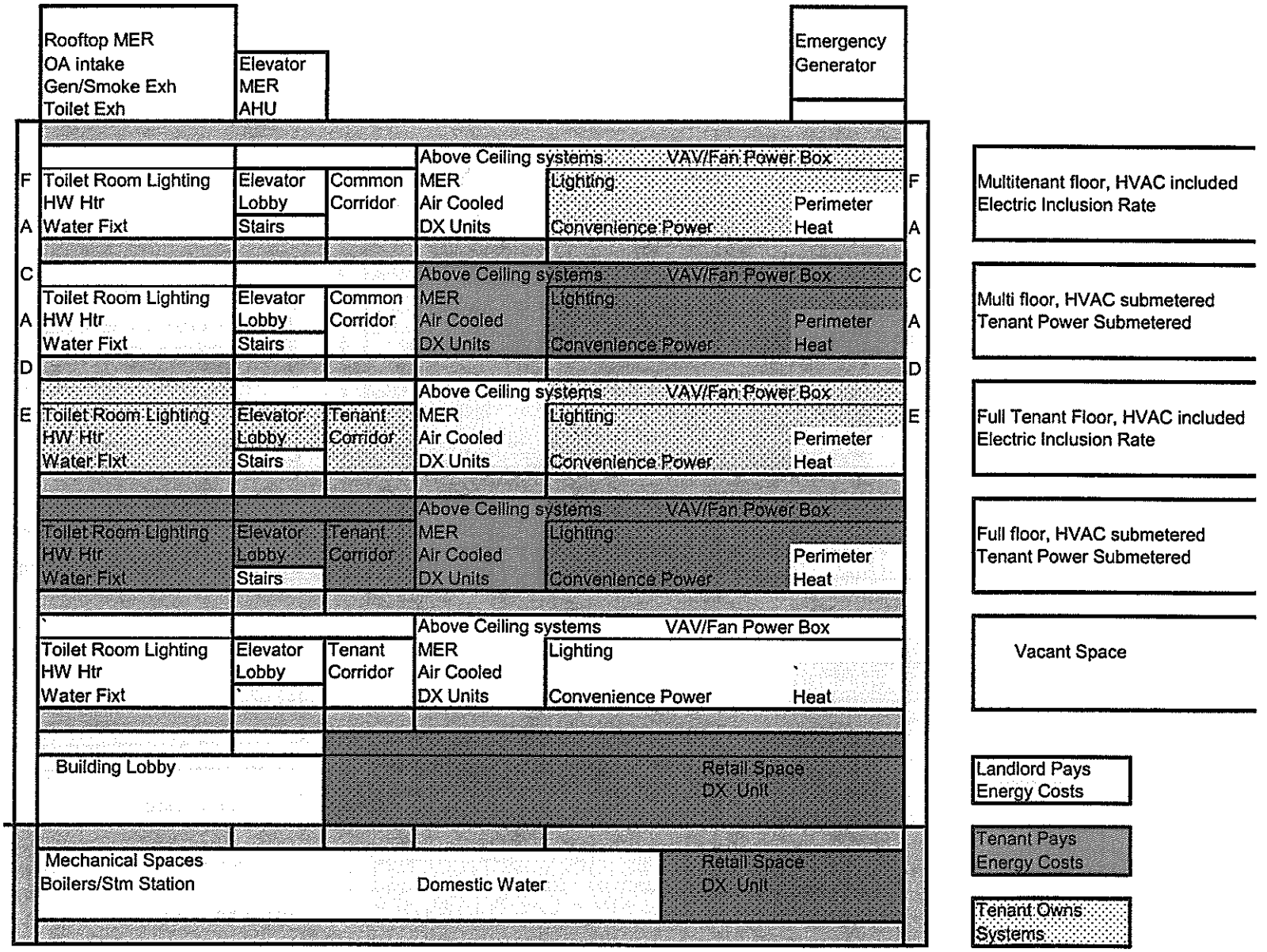
Tenant Pays
Energy Costs

Tenant Owns
Systems

Case 4: Air Cooled DX Units Floor by Floor

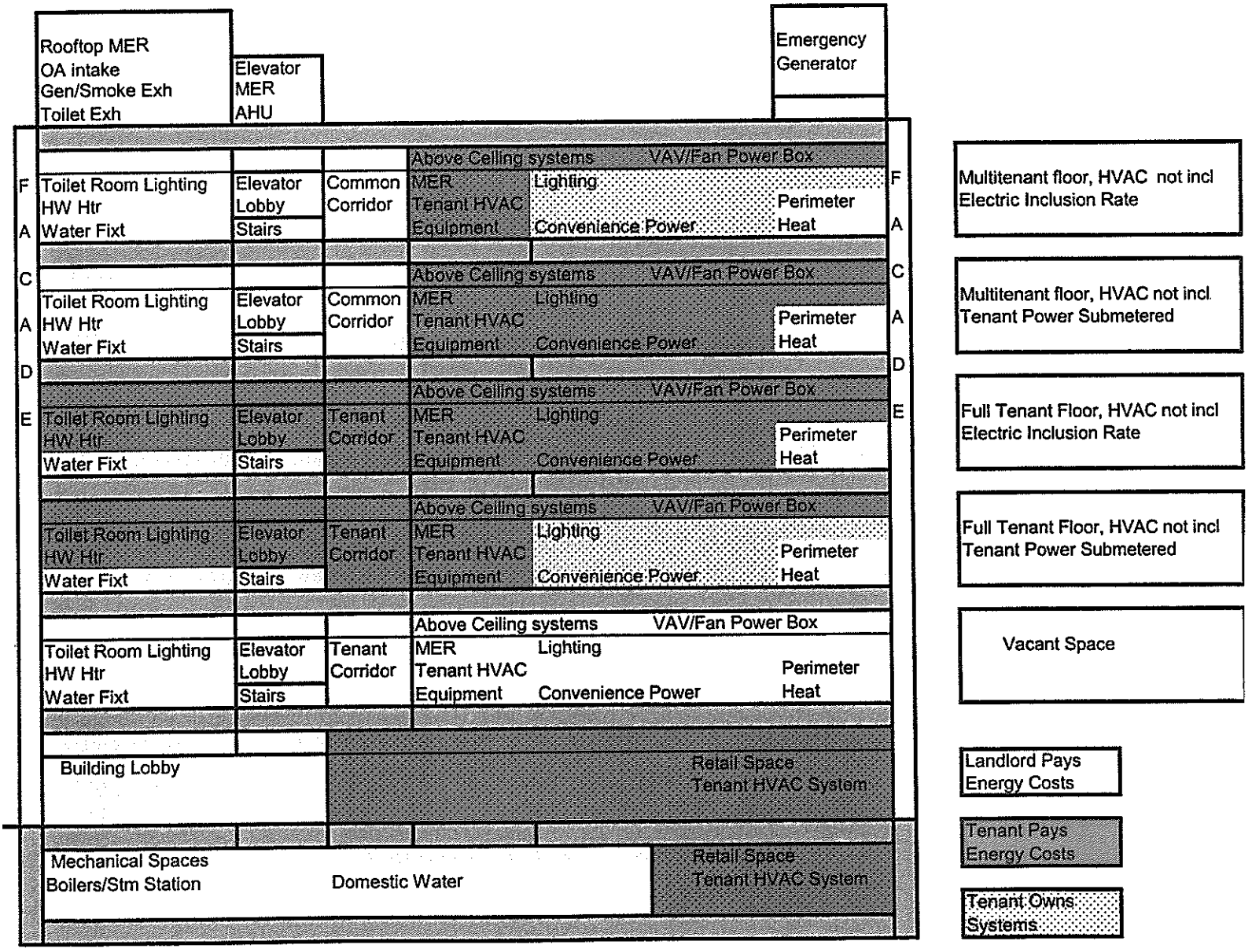
Variations:
Central Hot Water
Split System DX with DX AHUs in tenant space

Electric Heat in Rooftop Unit



Case 5: Heating Only

Tenant Installs Own HVAC Equipment



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International Union of Operating Engineers
Local Union No. 94A, 94B

331-337 WEST 44th STREET, NEW YORK, N.Y. 10036

KUBA J. BROWN
Business Manager

June 26, 2009

TO: Chairman Gennaro and Members of the Committee on Environmental Protection

Local 94-94A-94B of the International Union of Operating Engineers welcomes this opportunity to discuss Green Building and Sustainable Development in the City of New York. The members of this Union know the value and necessity of energy efficiency and environmentally friendly development and maintenance. Our 6,000 plus members service more than 700 buildings throughout the City and work closely with owners and managers to operate those buildings efficiently within allocated budgets. Further, the Local 94 Training Program, in which more than 1,600 members attend class annually for both mandatory and continuing education, provides training in areas such as Green Building, Environmental Health and Safety, Air Quality, Energy Conservation, Recycling and Emission Reduction, as well as many other programs.

In conjunction with the Central Labor Council, the Urban Agenda and the Real Estate community, the members of this committee have been drafting legislation for more than a year that was intended to be not only a model of "Green" legislation, but also practical and pragmatic for building owners, managers, and engineers. As Business Manager and President of Local 94, I assigned a number of our Business Agents and our Training Directors, all of whom have relevant expertise in this area, to work on this worthwhile project. Today, while I applaud the efforts and intentions of all involved, I must express my disappointment with the legislation as it stands. In this legislation, the administration has failed to include three fundamental features necessary for it to be useful and successful. The current legislation lacks the following:

1. **Tax credits or some other incentive program to assist residential, mixed-use, and commercial building owners to implement the provisions of the legislation.**
2. **Enforcement provisions to guarantee compliance.**
3. **Meaningful labor standards or requirements that workers performing the work be certified.**

While, as a labor leader, I certainly would like to ensure that good paying "green-collar" jobs such as the ones created by this legislation are performed by New Yorkers, the more important concern is that this legislation not be a wasted endeavor. Much time and well-intentioned effort has been expanded by all in creating this legislation. We must make sure that the final product can achieve the desired results. I have taken the liberty of submitting, along with my testimony, revised versions of the legislation being considered today, which incorporates our suggestions for improvement. Specifically, these suggestions add language that will ensure that qualified workers perform the functions created by the legislation. By addressing this concern and those previously mentioned, we can come closer to realizing the ultimate goals of energy efficiency and sustainable development.

We Will Never Forge

Mr. Chairman, in the past, you have offered us the opportunity to meet with your legislative staff. Today, I would like to take you up on that offer. I also would like to ask that we be active in the oversight of this legislation, particularly in assisting with the Green Work Codes Task Force and Technical Advisory Committees that will be established by these bills.

Thank you for the opportunity to address this Committee.

Kuba J. Brown
Business Manager/President
IUOE Local 94

KJB/jd

NYC Proposed Legislation:

Local 94 of the IUOE and the Central Labor Council respect and applaud the intent of the City Council and legislators in their efforts to promote Energy Conservation, Sustainability and High Performance Buildings in New York City. However, we have concerns about the architecture, mechanisms and processes that are outlined in the current revisions of the proposed legislation. This endeavor can only be successful if the process can be appropriately implemented and executed in the complex New York City business and residential environment.

In true New York City fashion, this plan will only be realized utilizing a team approach that involves property owners, property managers, the local engineering community, building operators, construction trades and city agencies. It is a complex process that cannot be rushed to legislation without the appropriate planning, analysis and input from all stakeholders. Without buy-in and cooperation from key participants, the plan will be fraught with difficulties and roadblocks, leading to limited success at best.

To this end we offer the following recommendations for alteration and additions to the existing proposed legislation:

Please see the attached revised Job Functions Template with suggested qualifications and certifications for participants in the plan. However, while we offer these suggestions, we are concerned with the ability to integrate these profiles into the current architecture of the legislation. Currently there are inconsistencies, omissions and "disconnects" within the major pieces of legislation.

For example:

1. The definitions of required roles in the process are not consistent throughout the different pieces of legislation and, in some cases, are not clearly defined.
2. Int_No_476-A: There are no specified qualifications for the entity performing the Benchmarking with the EPA Portfolio Manager. While the Benchmarking process may not seem like an extraordinarily complicated task and there are no current certification processes for participating parties, the Benchmarking step is critical to the success of the NYC Energy Legislation process. Not only does it define the baseline energy performance of the buildings, but it appears to be the intent of the legislation to use the yearly benchmarked performance to verify the sustainability of the energy conservation measures implemented as part of the Audit, Retro-commissioning and Retrofit processes that are required every ten years. This is certainly a significant importance tied to the benchmarking task.
   2.1. While the actual process of entering data into the Portfolio Manager and producing a benchmark is fairly simple, in order to produce an **accurate** benchmark, the Portfolio Manager needs to be provided with accurate information about the utilization of the building as well as the energy inputs. Only personnel with intimate knowledge of the building systems, occupancy, utilization and schedules, along with a clear understanding of the benchmarking

process can produce an accurate and lasting benchmark through the Portfolio Manager. This is a classic example of the "garbage in/garbage out" axiom. The benchmarking process depends upon being able to benchmark a building to truly similar properties. If the correct description data is not entered into the Portfolio Manager, it will be benchmarked against dissimilar buildings leading to an inappropriate benchmark score.

2.2. Operating Engineers have the knowledge and experience necessary for proper input into the Portfolio Manger.

2.3. There is currently no "certification" that we can identify to qualify a person to properly utilize the EPA Portfolio Manager to benchmark a NYC high rise commercial office building or a NYC Multifamily facility. In fact, the EPA just recently added the capability to benchmark Multifamily buildings and we are sure there are some idiosyncrasies involved with proper benchmarking of such properties.

2.4. In light of the above issues, we suggest that Local 94 work with the NYC legislators and NYSERDA to establish a certification process based on a short educational course with an appropriate short examination that will measure a candidates experience and qualifications to properly use the EPA Portfolio Manager to obtain an appropriate benchmark to be used as a metric for monitoring sustainable energy efficiency.

3. Int_No_967 Defines an "ENERGY PROFESSIONAL" as "An approved agency meeting the qualifications established by department rules to perform energy audits."

3.1. Is this an "agency" or an individual? How can qualifications that are usually attributed to individuals (like those associated with an energy auditor) be assigned to an agency?

3.2. As defined in this legislation, this is the entity responsible for performing or supervising the energy audit.

3.3. This position needs to be more clearly defined.

4. In Int_No_564-A there is reference to a "registered design professional" and a "lead energy professional". These entities are not defined anywhere in the legislation, nor are they mentioned in other related pieces such as Int_No_967.

4.1. These entities need to be clearly defined and incorporated into all components of related legislation.

5. In Int_No_967 Audits, Retro-Commissioning and Retrofits are lumped together without clear articulation and differentiation of what skills, qualifications, certifications and organizations should be required for these related but very different tasks in the energy conservation process. (NOTE: This same observation and associated recommendations are echoed in the REBNY response to the legislation.)

5.1. These related disciplines should be segregated with appropriate qualifications defined for those participating in each segment of the process.

5.2. All of these processes will require participation from several qualified parties; e.g.

5.2.1. Energy Audits: An ASHRAE Level II Audit should be supervised and certified by a Lead Energy Professional. However, in the interest of expediency, efficiency and completeness, an Energy Audit must take advantage of the knowledge and experience of the Building Operators and

Building Managers. The Responsible Auditor must work together with all of these factions to produce a viable Audit Analysis and Report. The IUOE training programs have been educating Operating Engineers on the processes and requirements of Energy Auditing through both IUOE developed curriculum and locally enhanced courses for over ten years. It has long been recognized by the professional engineering community that building operators are an invaluable source of operational information critical to the energy auditing process. Aside from adding time and cost to the auditing process, it would be irresponsible for the energy auditor to ignore this valuable source of information and facility evaluation.

5.2.2. Retro-commissioning: Building Operators have been practitioners of Retro-commissioning for many years without the official title. There is no party better equipped to exercise building systems, verity sequences of operation and correct operational deficiencies than the Building Operators. This process requires a somewhat different, albeit overlapping, skill set than Energy Auditing.

5.2.3. Retrofits: The actual process of building retrofits requires a concerted, coordinated effort among architects, design engineers, building management, operating personnel and a plethora of building and construction trades to affectively implement energy retrofits in commercial buildings.

5.2.4. The broad brush approach to these processes as currently outlined in the proposed legislation simply will not appropriately cover the complexities of the tasks.

5.2.5. The tasks of Energy Audits, Retro-commissioning and Retrofits should be separately defined and the qualifications for each discipline represented separately as well. A team approach to these tasks, using qualified participants for segments of each task is the only way to get quality results in a cost efficient manner.

In light of these overall issues, we recommend a complete review of the proposed legislation and we offer the specific language changes as noted in the attached revisions of the proposed laws for some sections that are easily changed. Note that the changes were made with the Microsoft Word tracking feature enabled so that changes are easily identified.

TEMPLATE FOR JOB FUNCTIONS ASSOCIATED WITH THE GREENER, GREATER BUILDINGS PLAN

Lead Energy Professional's profile

Description	Assess energy usage, identify and develop modifications and improvements to central systems of buildings. This includes visually checking HVAC, lighting, ducts, and weather-stripping

Skills	▪ Analyze building systems and identify EE opportunities ▪ Develop, quantify and describe Energy Conservation Measures, both low cost/no cost O & M Measures and Capital Measures ▪ Cost estimation ▪ Energy modeling ▪ Skilled with analytical technologies (e.g. thermography, blower door test) ▪
Qualifications/ certifications	▪ Prof Engineer (PE) ▪ Certified Energy Manager (CEM) ▪ Certified Energy Auditor (CEA) ▪ BPI MF Bldg Analyst ▪ Three years successful experience in conducting ASHRAE Level II or Level III Energy Audits in urban, high rise, commercial or residential facilities ▪
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires assistance from a team with different skill sets ▪ Keep current w/ newest technologies ▪ Required continuing edu. units ▪

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TEMPLATE FOR JOB FUNCTIONS ASSOCIATED WITH THE GREENER, GREATER BUILDINGS PLAN

Energy Professional's profile

Description	Assess or assist in assessing energy usage, identifying and developing modifications and improvements to central systems of buildings. This includes visually checking HVAC, lighting, ducts, and weather-stripping as well as understanding sequences of operation, building occupancy and utilization.
Skills	▪ Analyze building systems and identify EE opportunities ▪ Familiarity with processes of an ASHRAE Level II Audit ▪ Skilled with analytical technologies (e.g. thermography, blower door test) ▪
Qualifications/ certifications	▪ Prof Engineer (PE) ▪ Certified Energy Mnger (CEM) ▪ Energy Mngr in Training (EMIT) ▪ Certified Energy Auditor (CEA) ▪ Certified Energy Auditor in Training (CEAIT) ▪ BPI MF Bldg Analyst ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC) ▪ ▪ (Add the other certifications for appropriate trades)
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires a team with different skill sets ▪ Keep current w/ newest technologies ▪

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Retro-commissioners' profile

Description	Conduct non-capital work such as repairs, maintenance, adjustments, changes to controls or operational improvements that optimize a building's energy performance
Skills	▪ Understand bldg systems ▪ Strong knowledge of bldg science ▪ Testing and Balancing ▪ Knowledge of building operations & maintenance ▪ Experience with building and equipment operation and sequence of operation
Qualifications/ certifications	▪ Professional Engineer ▪ Nat'l Environmental Balancing Bureau (NEBB) ▪ Degree from Maritime Academy ▪ Navy or merchant marine engineer ▪ Certified Building Commissioning Professional (CBCP) ▪ Certified Energy Mnger (CEM) ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC)
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires a team with different skill sets

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Are specialized retro-commissioning certifications necessary?¶
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Building operators' profile

Description	Review major components and maintenance req'ts of the facility's electrical, HVAC, lighting systems; develop energy consumption profiles; optimize equipment for energy efficiency

Skills	▪ Understand bldg systems ▪ Strong knowledge of bldg science ▪ Energy awareness ▪ HVAC knowledge ▪ [ ]? ▪
Qualifications/ certifications	▪ Bldg Owners & Mngrs Inst, (BOMI) Systems Maintenance Technician ▪ Bldg Owners & Mngrs Inst, (BOMI) Systems Maintenance Administrator ▪ BPI Energy Eff Bldg Op ▪ Bldg Operator Cert'n (BOC)? ▪ USGBC LEED-EB? ▪ ASHRAE, Operations & Perf Mngt Prof (OPMP)? ▪ Int'l Facilities Mngt Assoc, Cert'd Facility Mngr? ▪ Stationary Engineer? ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC) ▪
Additional comments	▪ Skills and qualifications differ by bldg sector and size ▪ Keep current w/ newest technologies ▪ ▪

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Green Construction Workers' profile

Description	Includes such trades as: electricians, carpenters, pipefitters, plumbers, insulators, boilermakers, insulation blowers, HVAC technicians, general laborers; varies from entry- or apprentice-level to skilled/journeyman and managers

Skills	▪ Applied, hands-on skills ▪ Understand bldg systems ▪ Strong knowledge of bldg science? ▪ [ ]? ▪
Qualifications/ certifications	▪ BPI? ▪ Training programs for trades? ▪ Licensed trades? ▪ [ ]? ▪
Additional comments	▪ Skills and qualifications differ by profession, bldg sector and size ▪ Differentiate between universal skills vs. specialized skill ▪ USGBC green construction curriculum ▪ Keep current w/ newest technologies ▪ Required continuing edu. units? ▪ [ ]? ▪

Top 10 most recommended residential upgrades

Improvements	Examples	Who is doing this work	Potential skill gaps or skill set improvement
Efficient faucets & showerheads	▪ Low-flow showerheads ▪ Low-flow aerators	▪ Bldg operators ▪ Bldg supers ▪ Gen contractors? ▪ Plumbers?	▪
Lighting fixture upgrades	▪ Upgrade existing lighting ▪ High-eff. fluorescent ▪ Exterior lighting	▪ Electricians ▪ Lighting commissioners? ▪ Certified lighting efficiency prof's?	▪ [ ]? ▪
Exterior weather-stripping & sealing	▪ Weatherstrip/airseal exterior doors ▪ Seal A/C sleeves ▪ Replace windows ▪ Weatherseal windows ▪ Seal envelope penetrations	▪ Weatherization contractors ▪ [ ]?	▪ [ ]? ▪
DHW controls	▪ Decrease DHW temp ▪ DHW controls	▪ Bldg supers? ▪ Bldg operators?	▪ Proper adjustment of setpoints? ▪
Exhaust fan timers	▪ Install timers	▪ Electricians? ▪ Gen contractors?	▪ [ ]? ▪
Lighting controls	▪ Install lighting occupancy sensors ▪ Bi-level lighting	▪ Electricians	▪ Proper adjustment of sensors? ▪ [ ]? ▪
Pipe insulation	▪ DHW tank, insulate ▪ DHW piping	▪ Pipe insulators	▪ [ ]? ▪
Energy mgmt sys (EMS)	▪ Install EMS	▪ Controls technicians?	▪ [ ]? ▪
Boiler cleaning and tuning	▪ Burner, clean / tune ▪ Boiler, setpoint	▪ Bldg operators ▪ Bldg supers	▪ [ ]? ▪
Lightbulb upgrades (e.g. CFLS)	▪ Install CFLs	▪ Bldg operators ▪ Bldg supers ▪ Electricians	▪ [ ]? ▪

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Top 10 most recommended non-residential upgrades

Improvements	Examples	Who is doing this work	Potential skill gaps?
Demand controlled ventilation (DCV)	▪ Garage DCV ▪ Economizer control & DCV	▪ Electricians ▪ Mechanical tradesmen ▪ Gen. contractors ▪ Bldg operators	▪ Coordination of trades? ▪ [ ]?
Building mgmt systems	▪ Bldg mnmgt systems ▪ Direct digital control system	▪ Control technicians ▪ Electricians? ▪ Mechanical tradesmen?	▪ Coordination of trades? ▪ [ ]?
Retro-commissioning	▪ Optimization of existing systems (chiller, fan, pump, static pressure, cooling tower)	▪ Building maintenance staff ▪ Bldg operators ▪ Various trades, as required	▪ Current technologies? ▪ [ ]?
Mechanical controls	▪ Boiler controls ▪ Heating system controls	▪ Mechanical tradesmen? ▪ Electricians ▪ Bldg operators	▪ Proper adjustment of controls? ▪ [ ]?
Lighting controls	▪ Day lighting ▪ Local lighting controls ▪ Occupancy sensors	▪ Electricians ▪ Bldg operators	▪ Proper adjustment of sensors? ▪ [ ]?
Variable speed drives (VSD)	▪ VSD on condenser water pumps ▪ Premium eff motors ▪ VSD chiller water pumps	▪ Mechanical tradesmen ▪ Electricians ?	▪ Optimization of motors? ▪ [ ]?
Insulate pipes	▪ Insulate steam pipes ▪ Insulate DHW piping	▪ Pipe insulators ▪ Gen. contractors? ▪ Bldg operators	▪ [ ]?
Envelope penetrations	▪ Air sealing ▪ Ext weather-stripping	▪ Gen. contractors?	▪ [ ]?
Replace lights	▪ CFLs ▪ High-eff fluorescents	▪ Electricians ▪ Building operators ▪ Building supers	▪ [ ]?
Water conservation	▪ Low-flow aerators	▪ Plumbers ▪ Bldg operators ▪ Gen. contractors	▪ [ ]?

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Design professionals (e.g. interiors, lighting) & architects' profile	
Description	Includes such professions as architects, MEP (mechanical, electrical & plumbing) engineers, lighting designers, interior designers

Skills	▪ Understanding of energy codes ▪ Understanding of building codes ▪ [ ]? ▪
Qualifications/ certifications	▪ Professional license ▪ Codes training units? ▪ [ ]? ▪
Additional comments	▪ DOB enforcement of energy codes soon ▪ NYC Lighting Center ▪ Keep current w/ newest technologies ▪ Required continuing edu. units? ▪ [ ]? ▪

Proposed Int. No. 476-A

By Council Members Mark-Viverito, Recchia Jr., Avella, Brewer, Fidler, Gentile, James, Liu, Martinez, Nelson, Seabrook, Weprin, White Jr., Garodnick, Lappin and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to benchmarking the energy and water efficiency of buildings.

Be it enacted by the Council as follows:

Section 1. Chapter 3 of title 28 of the administrative code of the city of New York is amended by adding a new article 309 to read as follows:

ARTICLE 309

BENCHMARKING ENERGY AND WATER USE

§ 28-309.1 General. The energy and water use of city buildings and covered buildings shall be benchmarked in accordance with this article.

§ 28-309.2 Definitions. As used in this article, the following terms shall have the following meanings:

BENCHMARK. To input and submit to the benchmarking tool the total use of energy and water for a building for the previous calendar year and other descriptive information for such building as required by the benchmarking tool.

BENCHMARKING TOOL. The internet-based database system developed by the United States environmental protection agency, and any complementary interface designated by the office of long-term planning and sustainability, to track and assess the energy and water use of certain buildings relative to similar buildings.

Benchmarking Agent: A person with the appropriate training, experience and certification to properly use the EPA Portfolio Manager to obtain an accurate benchmark for a New York City commercial or residential high rise facility. Such Benchmark to be used for evaluation of a

facility's relative energy efficiency and an ongoing metric for monitoring sustainable energy efficiency in NYC buildings.

CITY BUILDING. A building that is more than 10,000 gross square feet, as determined by the department of finance, that is owned by the city or for which the city regularly pays all or part of the annual energy bills, provided that two or more buildings on the same tax lot shall be deemed to be one building.

Exception: The term "city building" shall not include:

1. Any building not owned by the city in which the city is a tenant and for which the city does not pay all the energy bills;

2. Any building owned by the city that participates in the tenant interim lease apartment purchase program; or

3. Any building owned by the city that (i) is 50,000 gross square feet or less, as determined by the department of finance, and (ii) participates in a program administered by the department of housing preservation and development.

COVERED BUILDING. A building that is not a city building and that exceeds 50,000 gross square feet, as determined by the department of finance, or two or more buildings on the same tax lot that together exceed 50,000 gross square feet, and provided that no building owned by the city shall be deemed to be a covered building.

DWELLING UNIT. A single unit consisting of one or more habitable rooms, occupied or arranged to be occupied as a unit separate from all other units within a building, and used primarily for residential purposes and not primarily for professional or commercial purposes.

ENERGY. Electricity, natural gas, fuel oil and steam.

OWNER. The owner of record, provided that "owner" shall be deemed to include: (i) the net lessee in the case of a building subject to a net lease with a term of at least forty-nine years, inclusive of all renewal options, (ii) the board of managers in the case of a condominium, and (iii) the board of directors in the case of a cooperative apartment corporation.

TENANT. Any tenant, tenant-stockholder of a cooperative apartment corporation, condominium unit owner or other occupant.

§ 28-309.3 Benchmarking required for city buildings. No later than July 1, 2010, and no later than every May first thereafter, any city building shall be benchmarked by a Benchmarking Agent representing the agency or entity primarily responsible for the management of such building, in coordination with the department of citywide administrative services with respect to energy use, and with the department of environmental protection with respect to water use. Benchmarking of water use shall not be required unless the building is metered by the New York city water board. The city shall maintain such documents as the department determines are necessary for the purpose of carrying out the provisions of this article.

§ 28-309.4 Benchmarking required for covered buildings. The owner of a covered building shall annually benchmark such covered building no later than July 1, 2010, and no later than every May first thereafter through the work of a Benchmarking Agent. Benchmarking of water use shall not be required unless the building is metered by the New York city water board.

§ 28-309.4.1 Obligation to request and to report information. Where a unit or other space in a covered building, other than a dwelling unit, is occupied by a tenant and such unit or space is separately metered by a utility company, the owner of such building shall request from such tenant information relating to such tenant's separately metered energy use for the previous calendar year and such tenant shall report such information to such owner.

§ 28-309.4.1.1 Owner solicitation of tenant information. Such owner shall request information relating to such tenant's separately metered energy use for the previous calendar year no earlier than January first and no later than January thirty-first of any year in which the owner is required to benchmark such building. The office of long-term planning and sustainability may require that such owner provide such tenant with a form designated by the office of long-term planning and sustainability to report such information.

§ 28-309.4.1.2 Tenant reporting of information. Such tenant shall report information relating to such tenant's separately metered energy use for the previous calendar year no later than February fifteenth of any year in which the owner is required to benchmark such building. Such information shall be reported in a form and manner determined by the office of long-term planning and sustainability.

§ 28-309.4.1.3 Provision of information prior to vacating a unit or other space. Where such owner receives notice that such tenant intends to vacate such unit or other space before reporting information in accordance with sections 28-309.4.1 and 28-309.4.1.2, such owner shall request information relating to such tenant's energy use for any period of occupancy relevant to such owner's obligation to benchmark. Any such tenant shall report such information to the owner of such building prior to vacating such unit or other space or, if such information is not available prior to vacating such unit or other space, as soon as practicable thereafter, regardless of whether such owner has requested information pursuant to this section. Such information shall be reported in a form and manner determined by the office of long-term planning and sustainability.

§ 28-309.4.1.4 Continuing obligation to benchmark. The failure of any or all tenants to report the information required by sections 28-309.4.1, 28-309.4.1.2, and 28-309.4.1.3 to the owner shall not relieve such owner of the obligation to benchmark pursuant to this article, provided that such owner shall not be required to benchmark such information not reported by a tenant unless otherwise available to such owner.

§ 28-309.4.2 Preservation of documents, inspection, and audit. Owners of covered buildings shall maintain such records as the department determines are necessary for carrying out the purposes of this article, including but not limited to energy and water bills and reports or forms received from tenants. Such records shall be preserved for a period of three years, provided that the commissioner may consent to their destruction within that period or may require that such records be preserved longer than such period. At the request of the department, such records shall be made available for inspection and audit by the department at the place of business of the owner or at the offices of the department during normal business hours.

§ 28-309.4.2 Violations. It shall be unlawful for the owner of a covered building to fail to benchmark pursuant to section 28-309.4. The commissioner shall classify such violation as a lesser violation.

§ 28-309.5 Direct upload. Information shall be directly uploaded to the benchmarking tool in accordance with the following:

§ 28-309.5.1 Direct upload by a utility company or other source. The office of long-term planning and sustainability shall encourage and facilitate any utility company or any other source authorized by the office of long-term planning and sustainability to upload directly to the benchmarking tool, as soon as practicable, information necessary to benchmark a

building. Where information is uploaded directly to the benchmarking tool by a utility company or other authorized source, owners and tenants shall not be obligated to request and report such information pursuant to section 28-309.4.1.

§ 28-309.5.2 Direct upload by the department of environmental protection. The department of environmental protection shall upload directly to the benchmarking tool information on water use at all buildings metered by the New York city water board that are subject to the benchmarking requirements of this article.

§ 28-309.6 Suspension. The director of the office of long-term planning and sustainability may suspend all or part of the requirement to benchmark pursuant to this article upon a written finding that a technological deficiency in the benchmarking tool precludes compliance with this article. The director of the office of long-term planning and sustainability may lift all or part of any such suspension upon a written finding that such deficiency has been corrected. The office of long-term planning and sustainability shall notify the city council, the department, the department of citywide administrative services, the department of environmental protection and the department of finance promptly upon issuing a suspension or lifting a suspension pursuant to this section.

§ 28-309.7 Notification and transmission of information. The department of finance shall:

1. Annually notify owners of covered buildings of their obligation to benchmark pursuant to section 28-309.4, provided that the failure of the department of finance to notify any such owner shall not affect the obligation of such owner to benchmark pursuant to such section.

2. Notify owners of covered buildings of any suspension or lifting of a suspension pursuant to section 28-309.6.

3. Make available to the department information regarding owners of covered buildings for which no benchmarking information was generated by the benchmarking tool.

§ 28-309.8 Disclosure. The department of finance shall make information generated by the benchmarking tool available to the public no later than September 1, 2011, and no later than every September first thereafter for city buildings, no later than September 1, 2012, and no later than every September first thereafter for covered buildings whose primary use is not residential, as determined by the department of finance, and no later than September 1, 2013, and no later than every September first thereafter for covered buildings whose primary use is residential, as determined by the department of finance. Such information may include, but need not be limited to: (i) the energy utilization index, (ii) carbon dioxide emissions per square foot, (iii) the water use per square foot, (iv) where available, a rating that compares the energy and water use of the building to that of similar buildings, and (v) a comparison of data across calendar years for any years such building was benchmarked. Information generated by the benchmarking tool for the 2009 calendar year for city buildings and covered buildings, for the 2010 calendar year for covered buildings, and for the 2011 calendar year for covered buildings whose primary use is residential, as determined by the department of finance, shall not be disclosed.

Exception: Information generated by the benchmarking tool for a covered building that contains a data center, television studio, or trading floor that exceeds a percentage of the gross square footage of any such building as determined in rules promulgated by the office of long term planning and sustainability shall not be disclosed until the office of long term planning and sustainability determines that the benchmarking tool can make adequate adjustments for such facilities.

§ 28-309.9 Report. No later than December 31 of 2010, 2011 and 2012, respectively, the office of long-term planning and sustainability shall prepare, submit to the mayor and city council, and post on the internet a report reviewing and evaluating the administration and enforcement of this article and analyzing data obtained from the benchmarking tool. Such report shall contain information regarding: (i) the energy and water efficiency of buildings in the city, (ii) accuracy of benchmarked data, (iii) compliance with the requirements of this article, (iv) any administrative and legislative recommendations for strengthening the administration and enforcement of this article, and (v) such other information and analysis as the office of long-term planning and sustainability deems appropriate.

§ 28-309.10 Rules. The department, the department of finance and the office of long-term planning and sustainability may promulgate such rules as deemed necessary to carry out the provisions of this article.

§ 2. This local law shall take effect immediately.

Int. No. 967

By Council Members Gennaro, Brewer, Comrie, Dickens, Fidler, Garodnick, Gioia, James, Koppell, Lappin, Martinez, Mitchell, Palma, Recchia Jr., Reyna, Rivera, Stewart Weprin, Nelson, Liu and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to requiring energy audits, retro-commissioning and retrofits of building systems.

Be it enacted by the Council as follows:

Section 1. Chapter 3 of title 28 of the administrative code of the city of New York is amended by adding a new article 308 to read as follows:

ARTICLE 308

AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

§28-308.1 Definitions. As used in this article, the following terms shall have the following meanings:

COVERED BUILDING. A building that exceeds 50,000 gross square feet, as determined by the department of finance, or two or more buildings on the same tax lot that together exceed 50,000 gross square feet.

CENTRAL SYSTEM. (NOTE: See REBNY suggestion on terminology.) Building systems or components thereof, as specified by the department, that are part of the building operation and control by the owner and use energy or impact energy consumption including:

1. The building envelope.

2. Equipment located within or supplying the common, public, service and utility portions of the building.

3. Each building system, including terminal units up to the point at which it connects to equipment installed by any tenant (other than a net lessee for a term of 49years or

more, inclusive of renewal options), condominium unit owner or cooperative unit shareholder.

Such systems shall not include power, lighting, appliances or electronics systems located within spaces occupied by tenants (other than a net lessee for a term of 49 years or more, inclusive of renewal options), condominium unit owners or cooperative unit shareholders.

ENERGY AUDIT. A systematic process of identifying and developing modifications and improvements to central systems of covered buildings based on the level II audit set forth in the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating and Air-conditioning Engineers Inc.(ASHRAE) as such process may be amended by the rules of the department. An audit shall include:

1. All reasonable retro-commissioning and retrofit measures that would, if implemented, reduce energy use and/or the cost of operating the building.

2. For each measure, the associated annual energy savings, the cost to implement, the simple payback, and Life Cycle Cost Benefit as calculated by methods determined by the department.

3. The building's benchmarking scores as per the EPA Portfolio Manager tool.

4. An accurate end-use break-down for initial usage and predicted energy savings.

5. An assessment of energy used outside the central system which impacts the energy consumption of the central system, however no retro-commissioning or retrofit measures will be required to be performed on equipment that is not part of the central system.

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ENERGY EFFICIENCY REPORT. The report required to be filed pursuant to section 28-308.4 of this article.

ENERGY MODELING. The use of an energy software program, approved by the department, to predict energy consumption..

ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules to participate to a significant extent in the performance of energy audits. (Note: Qualifications to be listed here or in an exhibit after finalized.)

FINANCIALLY DISTRESSED BUILDING. A covered building that meets one of a list of quantitative thresholds or that participates in a city-managed financial assistance program, as determined in rules to be promulgated by an agency designated by the mayor.

LEAD ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules to conduct, direct, supervise and certify an energy audit. (Note: Qualifications to be listed here or in an exhibit after finalized.)

LIFE CYCLE COST BENEFIT: (NOTE: to be defined.)

OWNER. The owner of record of a covered building, except that in the case of a net lease of an entire building for a term of 49 years or more, inclusive of renewal options, the term owner shall refer to the net lessee and in the case of a covered building held in cooperative or condominium form of ownership, the term owner shall refer to the board of managers in the case of a condominium and the board of directors in the case of a cooperative apartment corporation.

RETRO-COMMISSIONING MEASURES. Non-capital work such as repairs, maintenance, adjustments, changes to controls or operational improvements that optimize

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a building's energy performance, and that have been identified by a systematic process of investigating and analyzing the performance of a building's equipment and systems that impact energy consumption.

RETROFIT MEASURES. Capital alterations of building systems involving the installation of new equipment, insulation or other proven energy efficiency technologies that reduce energy consumption and improve the efficiency of such systems.

SIMPLE PAYBACK. The number of years it takes for the net projected annual energy savings to pay back the incremental amount invested in the energy efficiency measure, as determined by dividing the incremental investment by the net annual energy savings inclusive of changes in Operation and Maintenance costs.

SYSTEM. A building assembly made up of various components that serve a specific function, including but not limited to exterior walls, windows, doors, roofs, ceilings, floors, lighting, piping, ductwork, insulation, HVAC system equipment or components, electrical appliances and plumbing appliances.

§28-308.2 Energy audits required. The owner of a covered building shall ensure that an energy audit is performed on the central systems of such building no earlier than three years prior to the date on which such building's energy efficiency report is filed with the department pursuant to this article. Such energy audit must be performed by or under the supervision of a Lead Energy Professional, utilizing the services and input of available Energy Professionals, in accordance with rules promulgated by the department.

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Exceptions. No energy audit, retro-commissioning or retrofit is required if the building complies with one of the following exceptions:

1. The actual performance of the covered building, measured through an analysis of energy bills over a two year period within the three year period prior to the filing of an energy efficiency report, meets or exceeds the performance predicted by an energy model of such building having the same systems as such building and meeting the requirements of the New York city energy conservation code (whether or not the covered building is exempt from such code) in effect within 3 years prior to the due date of the building's energy efficiency report. The comparison of performance shall be determined by the energy cost budget method in accordance with rules promulgated by the department.

2. The covered building has received an EPA Energy Star label for at least two of the three years preceding the filing of the building's energy efficiency report.

3. The covered building has been certified under the Leadership in Energy and Environmental Design (LEED) 2009 rating system for Existing Buildings published by the United States Green Building Council or other LEED rating system for existing buildings, as determined by the department, within two years prior to the filing of the building's energy efficiency report.

§28-308.2.1 Contents of audit report. The Lead Energy Professional shall prepare and sign a report of the energy audit. The audit report shall include such information relating to the audit as shall be specified in the rules of the department including but not limited to (i) the date or dates that the audit was performed (ii) a list of all reasonable retro-commissioning and retrofit measures available to the owner, (iii) the costs and energy savings associated with each measure (iv) a list of all reasonable

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retro-commissioning and retrofit measures available to the owner with a simple payback of not more than 7 years, (v) at the option of the owner, a list of retro-commissioning and retrofit measures that when combined equal or exceed the overall reduction in energy consumption of all the retrofit and retro-commissioning measures with a simple payback of not more than 7 years.

§28-308.2.1.1 Compliance with landmarks laws. The cost estimates for retrofit and retro-commissioning measures in covered buildings that are regulated by any city, state or federal law regulating landmarks and historic buildings shall include all additional costs necessary for the proposed work to comply with such law.

§28-308.3 Retro-commissioning and retrofit measures required. The owner of a covered building shall ensure that all the retro-commissioning and retrofit measures identified in the audit report as having a simple payback of not more than 7 years or, at the option of the owner, retro-commissioning and retrofit measures that when combined equal or exceed the overall reduction in energy consumption of the retrofit and retro-commissioning measures with a simple payback of not more than 7 years, are performed by qualified individuals, contractors, agencies, etc., meeting the qualifications established by department rules to perform these services (Note: Qualifications to be listed here or in an exhibit after finalized.) on the systems of such building prior to the date on which such building's energy efficiency report is filed with the department pursuant to this article.

Exception. Where the owner determines post audit, in accordance with the rules of the department, that the actual cost of one or more of the retro-commissioning or retrofit measures may exceed the estimates set forth in the audit by more than 20 percent and that the simple payback for such measure or measures may exceed

7 years, the owner shall not be required to implement such measure or measures. The owner shall substantiate such determination in a manner to be set forth in the rules of the department.

§28-308.4 Energy efficiency report required. The owner of a covered building shall ensure that an energy efficiency report for such building, prepared and signed by a Lead Energy Professional, is submitted to the department on or within two years prior to the due date established pursuant to this section.

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Exceptions. 1. An owner of a covered building may apply for an extension of time to file an energy efficiency report if despite such owners good faith efforts, to be documented in such application, the owner is unable to complete required retro-commissioning and retrofit measures prior to the scheduled due date for such report. The commissioner may grant no more than 2 such extensions of no more than 1 year each. Extensions granted pursuant to this provision shall not extend the scheduled due dates for subsequent energy efficiency reports.

2. An owner of a covered building that qualifies as a financially distressed building may apply for extensions of time of not more than one year in each instance to submit an energy efficiency report to the department.

3. An owner of a covered building may apply for an extension of time to file an energy efficiency report if, despite the owners good faith efforts, to be documented in such application, the owner is unable to secure loans or grants to finance required retro-commissioning and retrofit measures prior to the scheduled due date for such report.

§28-308.4.1 Due dates for covered buildings in existence on the effective date of this article. No later than December 31st, 2010 the department shall by rule assign due dates for the first energy efficiency reports to be submitted for completed buildings in existence on the effective date of this article pursuant to a staggered schedule over a ten year period commencing on December 31st, 2013. No such first report shall be required to be submitted earlier than ten years after the building was completed, as determined by the department. Energy efficiency reports for such buildings shall be due every ten years thereafter on the anniversary of the due date of the first such report.

§28-308.4.2 Due dates for covered buildings completed after the effective date of this article. The owner of a covered building completed after the effective date of this article shall submit the first energy efficiency report for such building in the 10th year following the issuance of the first certificate of occupancy for such building on a due date to be assigned by the department . Energy efficiency reports for such building shall be due every ten years thereafter on the anniversary of the due date of the first report.

§28-308.5 Content of energy efficiency report. An energy efficiency report shall contain a certification by the Lead Energy Professional that the covered building is in compliance with the provisions of this article and the rules of the department. Unless one of the exceptions set forth in section 28-308.2 applies to such building, the report shall include (i) the energy audit report (ii) copies of approved construction documents for all required retro-commissioning and retro-fit work, (iii) sign-offs that any required work has been completed, (iv) substantiation of post audit computations of cost and simple

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payback in a manner to be provided in the rules of the department, and (v) other information relating to energy consumption required by the department. Where an energy audit, retro-commissioning and retrofit are not required pursuant to one of the exceptions set forth in section 28-308.2, such report shall include (i) substantiation that the covered building complies with such exception in a manner to be provided in the rules of the department and (ii) other information relating to energy consumption required by the department.

§28-308.6 Rules. Not later than December 31st 2010 the department shall promulgate rules to carry out the provisions of this article, which may include separate fees for reports and applications filed pursuant to this article.

§28-308.7 Notification by the department of finance. The department of finance shall notify the owner of each covered building of the requirements of this article three years prior to the due date of an energy efficiency report for such building and every year thereafter until the due date.

§2. Notwithstanding any inconsistent provision of article 308 of chapter 3 of title 28 of the administrative code, as added by section 1 of this local law, the owners of covered buildings in existence on the effective date of this local law may comply with the first assigned due date for the submission of an energy efficiency report, by submitting with such report records of audits, retro-commissioning and retrofits performed prior to December 31, 2013 on a voluntary basis and certified as completed prior to such date, subject to the following conditions:

a. Audits, retro-commissioning and retrofits performed after the enactment of rules by the department of buildings relating thereto shall conform to such rules.

b. Audits, retro-commissioning and retrofits performed and certified as completed prior to the adoption of such rules shall be a Level II Audit as set forth in the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), an audit performed under a NYSERDA or NYPA contract, or other audit as determined by the department. Such energy audit performed prior to the completion of rule-making shall be signed and dated by a Professional Engineer, Certified Energy Manager, or Certified Energy Auditor and shall include certification that all work associated with the audit, including but not limited to surveys, inspections, and analyses, was completed on or after January 1, 2006.

§3. Severability. If any section, subsection, sentence, clause, phrase or other portion of this local law is for any reason declared unconstitutional or invalid, in whole or in part, by any court of competent jurisdiction, such portion shall be deemed severable, and such unconstitutionality or invalidity shall not affect the validity of the remaining portions of this local law, which remaining portions shall continue in full force and effect.

§4. This local law shall take effect immediately, provided that no energy efficiency report shall be required to be submitted to the department of buildings before December 31st, 2013.

Proposed Int. No. 564-A

By Council Members Garodnick, Brewer, Fidler, Gonzalez, James, Koppell, Martinez, Sanders Jr., Seabrook, Weprin, White Jr., Gerson, Lappin. and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to establishing a New York city energy code.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. The Energy Conservation Construction Code of New York State (State Energy Code), authorized by article eleven of the State Energy Law, sets standards for the energy performance of buildings throughout New York. For existing buildings, the State Energy Code only applies when an alteration leads to the replacement of at least fifty percent of a building's system or subsystem, meaning there are no energy efficiency requirements for many renovation projects of a lesser magnitude or lower threshold. As a result of this loophole, New York City is failing to reap the benefits of energy improvements as the building fabric is updated in those situations. The State Energy Law expressly permits a municipality to promulgate a local energy conservation construction code that is more stringent than the State Energy Code. Accordingly, the Council finds that it is reasonable and necessary to promulgate a New York City Energy Conservation Code in order to ensure the enforcement of the State Energy Code within New York City and to impose energy standards for renovation projects at a lower threshold than that mandated by the State Energy Code.

§2. Title 28 of the administrative code of the city of New York is amended by adding a new chapter 10 to read as follows:

CHAPTER 10

THE NEW YORK CITY ENERGY CONSERVATION CODE

ARTICLE 1001

ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE

(NOTE: Needs definition section with appropriate renumbering.

LEAD ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules to certify compliance with the *New York City Energy Conservation Code*. (Note: Qualifications to be listed here or in an exhibit after finalized.)

REGISTERED DESIGN PROFESSIONAL. An individual meeting the qualifications established by department rules to certify compliance with the *New York City Energy Conservation Code*. (Note: Qualifications to be listed here or in an exhibit after finalized.)

§28-1001.1 Adoption of the energy code. In accordance with energy law section 11-109 that permits any municipality to promulgate a local energy conservation construction code, the city of New York hereby adopts the 2007 energy conservation construction code of New York state in effect and any amendments thereto that are more stringent than such code adopted by the city of New York as the minimum requirements for the design, construction and alteration of buildings for the effective use of energy in the city. Such adoption shall be subject to amendments pursuant to local law and set forth in section 1001.2 of this chapter, which shall be known and cited as the "New York city amendments to the 2007 energy conservation construction code of New York state." Such edition of the 2007 energy conservation construction code of New York state with

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such New York city amendments shall together be known and cited as the "New York city energy conservation code."

§28-1001.2 The New York city amendments to the 2007 energy conservation construction code of New York state. The following New York city amendments to the 2007 energy conservation construction code of New York state are hereby adopted as set forth in this section:

Section 101.1

Section 101.1 is revised to read as follows:

101.1 Title. These provisions shall be known and cited as the *"New York City Energy Conservation Code."* NYCECC" or "ECC." It is referred to herein as "this code." All section numbers in this code shall be deemed to be preceded by the designation "ECC."

Section 101.2

Section 101.2, including subsections, is deleted in its entirety and a new section 101.2 is added to read as follows:

101.2 Scope. This code applies to residential and commercial buildings as defined herein.

1. Where reference is made within this code to codes referenced in the U*niform Fire Prevention and Building Code of New York State* or to the R*esidential Code of New York State*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

2. Where reference is made within this code to the *New York City Building Code*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

Section 101.4.4

Section 101.4.4, including subsections, is deleted in its entirety and a new section 101.4.4 is added to read as follows:

101.4.4 Additions, alterations, renovations and repairs. Additions, alterations, renovations and repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as such provisions relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

Exception: The following need not comply with this code, provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.

2. Glass only replacements in an existing sash and frame.

3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.

4. Construction where the existing roof, wall or floor cavity is not exposed.

Section 101.5.1

Section 101.5.1 is deleted in its entirety and a new section 101.5.1 is added to read as follows:

101.5.1 Demonstration of compliance. The following documentation, as further described in rules promulgated by the department, shall be required to demonstrate compliance with this code for any building application or applications related to a project required to be submitted to the department:

101.5.1.1 Professional statement. Any registered design professional or lead energy professional filing such application or applications shall provide, sign and seal the following statement: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *New York City Energy Conservation Code*."

101.5.1.2 Energy analysis. For any project, an energy analysis comprising a sheet or sheets within the drawing set of the initial application for the project shall be provided.

1. For any new building project, such analysis shall include the envelope, mechanical, service water heating, and lighting and power systems in accordance with this code, regardless of how the project may be broken down into separate jobs for filing or other purposes.

2. For any building alteration project, such analysis shall compare the proposed design to prescriptive requirements of this code provided this code specifies prescriptive requirements for proposed work.

Exception: An energy analysis shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code*.

101.5.1.3 Supporting documentation. Supporting documentation, which is the approved construction drawings for a project, shall demonstrate conformance of such approved drawings with the energy analysis for every element of the energy analysis.

Exception: Supporting documentation shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code*.

Section 101.5.2.3

Section 101.5.2.3 – Delete section.

Section 105.1

A new section 105.1.2 is added to read as follows:

105.1.2 Reconciliation with *Energy Conservation Construction Code of New York State*. Whenever any provision of the *Energy Conservation Construction Code of New York State* provides for a more stringent requirement than imposed by this code, the more stringent requirement shall govern.

Section 202

General Definitions

Revise the definition of "Addition" after the definition of "Accessible," as follows:

ADDITION. An extension or increase in the conditioned space floor area or height of a building or structure.

Delete the definition of "Agricultural buildings" after the definition of "Addition" in its entirety.

Add a new definition of "Alteration," before the definition of "Approved," to read as follows:

ALTERATION. Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

Revise the definition of "Approved" before the definition of "Automatic" to read as follows:

APPROVED. Approved shall have the meaning as such term is defined in section 28-101.5 of the *Administrative Code*.

Add a new definition of "Project" before the definition of "Proposed design" to read as follows:

PROJECT. A design and construction undertaking comprised of work related to one or more buildings and the site improvements. A project is represented by one or more plan/work applications, including construction documents compiled in accordance with Section 106 of the New York City Building Code, that relate either to the construction of a new building or buildings or to the demolition or alteration of an existing building or

buildings. Applications for a project may have different registered design professionals and different job numbers, and may result in the issuance of one or more permits.

Delete the definition of "Substantial Alteration" in its entirety.

Revise the definition of "System or Subsystem" to read as follows:

SYSTEM. A building assembly made up of various components that serve a specific function including but not limited to exterior walls, windows, doors, roofs, ceilings, floors, lighting, piping, ductwork, insulation, HVAC system equipment or components, electrical appliances and plumbing appliances.

Chapter 10

Chapter 10: Under ASHRAE, revise "*90.1-2001" to "90.1-2004."

28-1001.3 Periodic update.

28-1001.3.1 The commissioner shall submit to the city council proposed amendments that he or she determines should be made to this code to bring it up to date with or exceed the latest edition of the energy conservation construction code of New York state, and to bring it up to date with the latest edition of the international energy conservation code or otherwise modify the provisions thereof (i) following any revision of the energy conservation construction code of New York state that establishes more stringent requirements than those imposed by this code and (ii) no later than the third year after the effective date of this section or not later than three years after the submission of proposed amendments pursuant to paragraph (i) of this subdivision, whichever is later. Prior to such submission, such proposed amendments

shall be submitted to an advisory committee established by the commissioner pursuant to subdivision b of this section for review and comment.

28-1003.2 The commissioner shall establish a New York city energy conservation code advisory committee to provide advice and recommendations regarding such code and revisions thereto. Such committee shall include registered design professionals knowledgeable in energy efficiency, energy conservation, building design and construction; environmental advocates with expertise in energy efficiency and conservation; construction and real estate professionals; and representatives of appropriate labor organizations.

§3. Section 28-101.1 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-101.1 Title. The provisions of this chapter shall apply to the administration of the codes set forth in this title and the 1968 building code. The codes as set forth in this title shall be known and may be cited as the "New York city construction codes" and shall consist of:

The New York city plumbing code.

The New York city building code.

The New York city mechanical code.

The New York city fuel gas code.

The New York city energy conservation code.

§4. Section 28-101.4.3 of the administrative code of the city of New York is amended by adding a new item 8 to read as follows:

8. All work related to energy efficiency shall be regulated by the New York city energy conservation code.

§5. Section 28-104.7.9 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-104.7.9 Energy conservation [construction] code. The application shall contain all information required to demonstrate compliance with the [energy conservation construction code of New York state] New York city energy conservation code. This information shall include signed and sealed construction drawings to the extent that they demonstrate such energy code compliance in the energy analysis or the supporting documentation as required by such energy code and rules.

§6. Item 4 of section 28-104.8.1 of the administrative code of the city of NewYork, as added by local law number 33 for the year 2007, is amended to read as follows:

4. A statement certifying compliance with the [energy conservation construction code of New York state] New York city energy conservation code.

§7. Section 101.4.6 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

101.4.6 Energy. The provisions of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* shall apply to matters governing the design, construction and alteration of buildings for energy efficiency.

§8. Section 106.6 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.6 Architectural plans. Construction documents for all buildings shall provide detailed drawings of all architectural elements of the building showing compliance with the code, including but not limited to doors, windows and interior finish schedules, [and other] details necessary to substantiate all required fire-protection characteristics, [as well as other] details demonstrating compliance with the *New York City Energy Conservation Code* and details demonstrating compliance with all accessibility requirements of this code. Site safety features shall be shown where applicable. Plans shall also provide details of the exterior wall envelope as required, including but not limited to flashing, insulation, vapor retarder, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

Exception: Where a curtain wall system is to be employed containing elements that are normally detailed on shop or working drawings, approval of construction documents shall be conditioned upon deferred submittal of such shop or working drawings showing the approval of the registered design professional who prepared the architectural construction documents, or of a signed statement by such registered design professional that such drawings were prepared to his or her satisfaction. In such cases, submittal of construction documents showing compliance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code* related to such curtain wall may also be deferred. Such deferred submittal of construction documents must demonstrate that the estimated annual energy use for the envelope in the energy analysis submitted as part of the initial filing is not exceeded.

§9. Section 106.13 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.13 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State.*" In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] <u>compliance documentation as required by the *New York City Energy Conservation Code*</u>.

§10. Section 1301.1.1 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§11. Section 106.10 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the

department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§12. Section 313.1 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

313.1 General. Equipment efficiencies shall be in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§13. Section 607.2 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2 Hot water supply temperature maintenance. Where the developed length of hot water piping from the source of hot water supply to the farthest fixture exceeds 20 feet (6096 mm), the hot water supply system shall be provided with a method of maintaining the temperature in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§14. Section 607.2.1 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2.1 Piping insulation. Circulating hot water system piping shall be insulated in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§15. Section 106.8 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.8 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State.*" In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, and service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§16. Section 301.2 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§17. Section 605.3 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

605.3 Combustion Air Supply. The requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply shall be followed.

§18. Section 106.10 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service

water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.

2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§19. The definition of Unusually Tight Construction in section 202 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

UNUSUALLY TIGHT CONSTRUCTION. Construction meeting all of the following requirements:

1. Walls exposed to the outside atmosphere having a continuous water vapor retarder with a rating of 1 perm (57 ng/s $\circ$ m^2 $\circ$ Pa) or less with openings gasketed or sealed; and
2. Openable windows and doors meeting the air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, Section 802.3.1; and

3. Caulking or sealants are applied to areas, such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines, and at other openings.

§20. Section 301.2 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code*.

§21. Exception 3 of section 303.3 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

3. Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Section 703. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* and equipped with an approved self-closing device.

§22. Section 312.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

312.1 Load calculations. Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall be determined in accordance with the procedures described in the ASHRAE Handbook of Fundamentals. Heating and cooling loads shall be adjusted to account for load reductions that are achieved when energy recovery systems are utilized in the HVAC system in accordance with the ASHRAE Handbook - HVAC Systems and Equipment. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in Chapter 3 of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*. Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall also comply with the requirements of Section 1204 of the *New York City Building Code*.

§23. Section 514.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

514.1 General. Energy recovery ventilation systems shall be installed in accordance with this section. Where required for purposes of energy conservation, energy recovery ventilation systems shall also comply with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§24. Section 603.9 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

603.9 Joints, seams and connections. All longitudinal and transverse joints, seams and connections in metallic and nonmetallic ducts shall be constructed as specified in

SMACNA *HVAC Duct Construction Standards—Metal and Flexible* and SMACNA *Fibrous Glass Duct Construction Standards* or NAIMA *Fibrous Glass Duct Construction Standards*. All longitudinal and transverse joints, seams and connections shall be sealed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§25. Section 604.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

604.1 General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§26. Section 903.5 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

903.5 Combustion air supply. All installations of factory-built fireplaces shall comply with the requirements of the [*Energy Conservation Construction Code of New York* State] *New York City Energy Conservation Code* concerning combustion air supply.

§27. Section 905.4 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

905.4 Combustion air supply. All fireplace stoves and room heaters shall comply with the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply.

§28. Section 1204.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.1 Insulation characteristics. Pipe insulation installed in buildings shall conform to the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, shall be tested in accordance with ASTM E 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1.

§29. Section 1204.2 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.2 Required thickness. Hydronic piping shall be insulated to the thickness required by the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§30. If any section, subdivision, paragraph, item, sentence, clause, phrase or other portion of this local law is for any reason declared unconstitutional or invalid, in whole or in part, by any court of competent jurisdiction, such portion shall be deemed severable, and such unconstitutionality or invalidity shall not affect the validity of the remaining portions of this law, which remaining portions shall continue in full force and effect.

§31. This local law shall take effect on January 1, 2010; provided, that the commissioner of buildings shall take all actions necessary to implement this local law, including the promulgation of rules, on or before such effective date.

June 26, 2009

Good Morning Ladies and Gentlemen,

I would like to take this opportunity to thank, Speaker Quinn, and the entire City Council for affording me this opportunity to speak on the local laws being introduced today.

The International Union of Operating Engineers Local 30 looks forward to working with the Speaker, City Council and the Mayor's Office of Long Term Planning and Sustainability in formulating effective legislation that will reduce our carbon footprint and expedite the greening of New York City.

It is our hope that in the final hour, the legislation passed will utilize the existing workforce of New York City Licensed Refrigeration System Operating Engineers and High Pressure Boiler Operator Engineers, the recognized experts in energy conservation and indoor air quality, to accomplish much of this work and provide future job opportunities for our 150 Apprentice Engineers in-training.

Thank you for this opportunity.

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International Union of Operating Engineers
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KUBA J. BROWN
Business Manager

June 26, 2009

TO: Chairman Gennaro and Members of the Committee on Environmental Protection

Local 94-94A-94B of the International Union of Operating Engineers welcomes this opportunity to discuss Green Building and Sustainable Development in the City of New York. The members of this Union know the value and necessity of energy efficiency and environmentally friendly development and maintenance. Our 6,000 plus members service more than 700 buildings throughout the City and work closely with owners and managers to operate those buildings efficiently within allocated budgets. Further, the Local 94 Training Program, in which more than 1,600 members attend class annually for both mandatory and continuing education, provides training in areas such as Green Building, Environmental Health and Safety, Air Quality, Energy Conservation, Recycling and Emission Reduction, as well as many other programs.

In conjunction with the Central Labor Council, the Urban Agenda and the Real Estate community, the members of this committee have been drafting legislation for more than a year that was intended to be not only a model of "Green" legislation, but also practical and pragmatic for building owners, managers, and engineers. As Business Manager and President of Local 94, I assigned a number of our Business Agents and our Training Directors, all of whom have relevant expertise in this area, to work on this worthwhile project. Today, while I applaud the efforts and intentions of all involved, I must express my disappointment with the legislation as it stands. In this legislation, the administration has failed to include three fundamental features necessary for it to be useful and successful. The current legislation lacks the following:

1. **Tax credits or some other incentive program to assist residential, mixed-use, and commercial building owners to implement the provisions of the legislation.**
2. **Enforcement provisions to guarantee compliance.**
3. **Meaningful labor standards or requirements that workers performing the work be certified.**

While, as a labor leader, I certainly would like to ensure that good paying "green-collar" jobs such as the ones created by this legislation are performed by New Yorkers, the more important concern is that this legislation not be a wasted endeavor. Much time and well-intentioned effort has been expanded by all in creating this legislation. We must make sure that the final product can achieve the desired results. I have taken the liberty of submitting, along with my testimony, revised versions of the legislation being considered today, which incorporates our suggestions for improvement. Specifically, these suggestions add language that will ensure that qualified workers perform the functions created by the legislation. By addressing this concern and those previously mentioned, we can come closer to realizing the ultimate goals of energy efficiency and sustainable development.

§28-308.4.1 Due dates for covered buildings in existence on the effective date of this article. No later than December 31st, 2010 the department shall by rule assign due dates for the first energy efficiency reports to be submitted for completed buildings in existence on the effective date of this article pursuant to a staggered schedule over a ten year period commencing on December 31st, 2013. No such first report shall be required to be submitted earlier than ten years after the building was completed, as determined by the department. Energy efficiency reports for such buildings shall be due every ten years thereafter on the anniversary of the due date of the first such report.

§28-308.4.2 Due dates for covered buildings completed after the effective date of this article. The owner of a covered building completed after the effective date of this article shall submit the first energy efficiency report for such building in the 10th year following the issuance of the first certificate of occupancy for such building on a due date to be assigned by the department . Energy efficiency reports for such building shall be due every ten years thereafter on the anniversary of the due date of the first report.

§28-308.5 Content of energy efficiency report. An energy efficiency report shall contain a certification by the Lead Energy Professional that the covered building is in compliance with the provisions of this article and the rules of the department. Unless one of the exceptions set forth in section 28-308.2 applies to such building, the report shall include (i) the energy audit report (ii) copies of approved construction documents for all required retro-commissioning and retro-fit work, (iii) sign-offs that any required work has been completed, (iv) substantiation of post audit computations of cost and simple

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payback in a manner to be provided in the rules of the department, and (v) other information relating to energy consumption required by the department. Where an energy audit, retro-commissioning and retrofit are not required pursuant to one of the exceptions set forth in section 28-308.2, such report shall include (i) substantiation that the covered building complies with such exception in a manner to be provided in the rules of the department and (ii) other information relating to energy consumption required by the department.

§28-308.6 Rules. Not later than December 31st 2010 the department shall promulgate rules to carry out the provisions of this article, which may include separate fees for reports and applications filed pursuant to this article.

§28-308.7 Notification by the department of finance. The department of finance shall notify the owner of each covered building of the requirements of this article three years prior to the due date of an energy efficiency report for such building and every year thereafter until the due date.

§2. Notwithstanding any inconsistent provision of article 308 of chapter 3 of title 28 of the administrative code, as added by section 1 of this local law, the owners of covered buildings in existence on the effective date of this local law may comply with the first assigned due date for the submission of an energy efficiency report, by submitting with such report records of audits, retro-commissioning and retrofits performed prior to December 31, 2013 on a voluntary basis and certified as completed prior to such date, subject to the following conditions:

a. Audits, retro-commissioning and retrofits performed after the enactment of rules by the department of buildings relating thereto shall conform to such rules.

b. Audits, retro-commissioning and retrofits performed and certified as completed prior to the adoption of such rules shall be a Level II Audit as set forth in the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), an audit performed under a NYSERDA or NYPA contract, or other audit as determined by the department. Such energy audit performed prior to the completion of rule-making shall be signed and dated by a Professional Engineer, Certified Energy Manager, or Certified Energy Auditor and shall include certification that all work associated with the audit, including but not limited to surveys, inspections, and analyses, was completed on or after January 1, 2006.

§3. Severability. If any section, subsection, sentence, clause, phrase or other portion of this local law is for any reason declared unconstitutional or invalid, in whole or in part, by any court of competent jurisdiction, such portion shall be deemed severable, and such unconstitutionality or invalidity shall not affect the validity of the remaining portions of this local law, which remaining portions shall continue in full force and effect.

§4. This local law shall take effect immediately, provided that no energy efficiency report shall be required to be submitted to the department of buildings before December 31st, 2013.

Proposed Int. No. 564-A

By Council Members Garodnick, Brewer, Fidler, Gonzalez, James, Koppell, Martinez, Sanders Jr., Seabrook, Weprin, White Jr., Gerson, Lappin. and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to establishing a New York city energy code.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. The Energy Conservation Construction Code of New York State (State Energy Code), authorized by article eleven of the State Energy Law, sets standards for the energy performance of buildings throughout New York. For existing buildings, the State Energy Code only applies when an alteration leads to the replacement of at least fifty percent of a building's system or subsystem, meaning there are no energy efficiency requirements for many renovation projects of a lesser magnitude or lower threshold. As a result of this loophole, New York City is failing to reap the benefits of energy improvements as the building fabric is updated in those situations. The State Energy Law expressly permits a municipality to promulgate a local energy conservation construction code that is more stringent than the State Energy Code. Accordingly, the Council finds that it is reasonable and necessary to promulgate a New York City Energy Conservation Code in order to ensure the enforcement of the State Energy Code within New York City and to impose energy standards for renovation projects at a lower threshold than that mandated by the State Energy Code.

§2. Title 28 of the administrative code of the city of New York is amended by adding a new chapter 10 to read as follows:

CHAPTER 10

THE NEW YORK CITY ENERGY CONSERVATION CODE

ARTICLE 1001

ENACTMENT AND UPDATE OF THE NEW YORK CITY ENERGY CONSERVATION CODE

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(NOTE: Needs definition section with appropriate renumbering.

LEAD ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules To certify compliance with the *New York City Energy Conservation Code*. (Note: Qualifications to be listed here or in an exhibit after finalized.)

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REGISTERED DESIGN PROFESSIONAL. An individual meeting the qualifications established by department rules To certify compliance with the *New York City Energy Conservation Code*. (Note: Qualifications to be listed here or in an exhibit after finalized.)

§28-1001.1 Adoption of the energy code. In accordance with energy law section 11-109 that permits any municipality to promulgate a local energy conservation construction code, the city of New York hereby adopts the 2007 energy conservation construction code of New York state in effect and any amendments thereto that are more stringent than such code adopted by the city of New York as the minimum requirements for the design, construction and alteration of buildings for the effective use of energy in the city. Such adoption shall be subject to amendments pursuant to local law and set forth in section 1001.2 of this chapter, which shall be known and cited as the "New York city amendments to the 2007 energy conservation construction code of New York state." Such edition of the 2007 energy conservation construction code of New York state with

such New York city amendments shall together be known and cited as the "New York city energy conservation code."

§28-1001.2 The New York city amendments to the 2007 energy conservation construction code of New York state. The following New York city amendments to the 2007 energy conservation construction code of New York state are hereby adopted as set forth in this section:

Section 101.1

Section 101.1 is revised to read as follows:

101.1 Title. These provisions shall be known and cited as the *"New York City Energy Conservation Code,"* NYCECC" or "ECC." It is referred to herein as "this code." All section numbers in this code shall be deemed to be preceded by the designation "ECC."

Section 101.2

Section 101.2, including subsections, is deleted in its entirety and a new section 101.2 is added to read as follows:

101.2 Scope. This code applies to residential and commercial buildings as defined herein.

1. Where reference is made within this code to codes referenced in the *Uniform Fire Prevention and Building Code of New York State* or to the *Residential Code of New York State*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

2. Where reference is made within this code to the *New York City Building Code*, the reference shall be deemed to be to the analogous provision of the *New York City Construction Codes*, the 1968 building code of the city of New York, the *New York City Fire Code* and the *New York City Electrical Code*.

Section 101.4.4

Section 101.4.4, including subsections, is deleted in its entirety and a new section 101.4.4 is added to read as follows:

101.4.4 Additions, alterations, renovations and repairs. Additions, alterations, renovations and repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as such provisions relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

Exception: The following need not comply with this code, provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.

2. Glass only replacements in an existing sash and frame.

3. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.

4. Construction where the existing roof, wall or floor cavity is not exposed.

Section 101.5.1

Section 101.5.1 is deleted in its entirety and a new section 101.5.1 is added to read as follows:

101.5.1 Demonstration of compliance. The following documentation, as further described in rules promulgated by the department, shall be required to demonstrate compliance with this code for any building application or applications related to a project required to be submitted to the department:

101.5.1.1 Professional statement. Any registered design professional or lead energy professional filing such application or applications shall provide, sign and seal the following statement: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *New York City Energy Conservation Code*."

101.5.1.2 Energy analysis. For any project, an energy analysis comprising a sheet or sheets within the drawing set of the initial application for the project shall be provided.

1. For any new building project, such analysis shall include the envelope, mechanical, service water heating, and lighting and power systems in accordance with this code, regardless of how the project may be broken down into separate jobs for filing or other purposes.

2. For any building alteration project, such analysis shall compare the proposed design to prescriptive requirements of this code provided this code specifies prescriptive requirements for proposed work.

Exception: An energy analysis shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code.*

101.5.1.3 Supporting documentation. Supporting documentation, which is the approved construction drawings for a project, shall demonstrate conformance of such approved drawings with the energy analysis for every element of the energy analysis.

Exception: Supporting documentation shall not be required for work not required to have a permit as provided pursuant to section 28-105.4 of the *Administrative Code.*

Section 101.5.2.3

Section 101.5.2.3 – Delete section.

Section 105.1

A new section 105.1.2 is added to read as follows:

105.1.2 Reconciliation with *Energy Conservation Construction Code of New York State.* Whenever any provision of the *Energy Conservation Construction Code of New York State* provides for a more stringent requirement than imposed by this code, the more stringent requirement shall govern.

Section 202

General Definitions

Revise the definition of "Addition" after the definition of "Accessible," as follows:

ADDITION. An extension or increase in the conditioned space floor area or height of a building or structure.

Delete the definition of "Agricultural buildings" after the definition of "Addition" in its entirety.

Add a new definition of "Alteration," before the definition of "Approved," to read as follows:

ALTERATION. Any construction or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a mechanical system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

Revise the definition of "Approved" before the definition of "Automatic" to read as follows:

APPROVED. Approved shall have the meaning as such term is defined in section 28-101.5 of the *Administrative Code.*

Add a new definition of "Project" before the definition of "Proposed design" to read as follows:

PROJECT. A design and construction undertaking comprised of work related to one or more buildings and the site improvements. A project is represented by one or more plan/work applications, including construction documents compiled in accordance with Section 106 of the New York City Building Code, that relate either to the construction of a new building or buildings or to the demolition or alteration of an existing building or

buildings. Applications for a project may have different registered design professionals and different job numbers, and may result in the issuance of one or more permits.

Delete the definition of "Substantial Alteration" in its entirety.

Revise the definition of "System or Subsystem" to read as follows:

SYSTEM. A building assembly made up of various components that serve a specific function including but not limited to exterior walls, windows, doors, roofs, ceilings, floors, lighting, piping, ductwork, insulation, HVAC system equipment or components, electrical appliances and plumbing appliances.

Chapter 10

Chapter 10: Under ASHRAE, revise "*90.1-2001" to "90.1-2004."

28-1001.3 Periodic update.

28-1001.3.1 The commissioner shall submit to the city council proposed amendments that he or she determines should be made to this code to bring it up to date with or exceed the latest edition of the energy conservation construction code of New York state, and to bring it up to date with the latest edition of the international energy conservation code or otherwise modify the provisions thereof (i) following any revision of the energy conservation construction code of New York state that establishes more stringent requirements than those imposed by this code and (ii) no later than the third year after the effective date of this section or not later than three years after the submission of proposed amendments pursuant to paragraph (i) of this subdivision, whichever is later. Prior to such submission, such proposed amendments

shall be submitted to an advisory committee established by the commissioner pursuant to subdivision b of this section for review and comment.

28-1003.2 The commissioner shall establish a New York city energy conservation code advisory committee to provide advice and recommendations regarding such code and revisions thereto. Such committee shall include registered design professionals knowledgeable in energy efficiency, energy conservation, building design and construction; environmental advocates with expertise in energy efficiency and conservation; construction and real estate professionals; and representatives of appropriate labor organizations.

§3. Section 28-101.1 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-101.1 Title. The provisions of this chapter shall apply to the administration of the codes set forth in this title and the 1968 building code. The codes as set forth in this title shall be known and may be cited as the "New York city construction codes" and shall consist of:

The New York city plumbing code.

The New York city building code.

The New York city mechanical code.

The New York city fuel gas code.

The New York city energy conservation code.

§4. Section 28-101.4.3 of the administrative code of the city of New York is amended by adding a new item 8 to read as follows:

8. All work related to energy efficiency shall be regulated by the New York city energy conservation code.

§5. Section 28-104.7.9 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

28-104.7.9 Energy conservation [construction] code. The application shall contain all information required to demonstrate compliance with the [energy conservation construction code of New York state] New York city energy conservation code. This information shall include signed and sealed construction drawings to the extent that they demonstrate such energy code compliance in the energy analysis or the supporting documentation as required by such energy code and rules.

§6. Item 4 of section 28-104.8.1 of the administrative code of the city of NewYork, as added by local law number 33 for the year 2007, is amended to read as follows:

4. A statement certifying compliance with the [energy conservation construction code of New York state] New York city energy conservation code.

§7. Section 101.4.6 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

101.4.6 Energy. The provisions of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* shall apply to matters governing the design, construction and alteration of buildings for energy efficiency.

§8. Section 106.6 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.6 Architectural plans. Construction documents for all buildings shall provide detailed drawings of all architectural elements of the building showing compliance with the code, including but not limited to doors, windows and interior finish schedules, [and other] details necessary to substantiate all required fire-protection characteristics, [as well as other] details demonstrating compliance with the *New York City Energy Conservation Code* and details demonstrating compliance with all accessibility requirements of this code. Site safety features shall be shown where applicable. Plans shall also provide details of the exterior wall envelope as required, including but not limited to flashing, insulation, vapor retarder, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

Exception: Where a curtain wall system is to be employed containing elements that are normally detailed on shop or working drawings, approval of construction documents shall be conditioned upon deferred submittal of such shop or working drawings showing the approval of the registered design professional who prepared the architectural construction documents, or of a signed statement by such registered design professional that such drawings were prepared to his or her satisfaction. In such cases, submittal of construction documents showing compliance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code* related to such curtain wall may also be deferred. Such deferred submittal of construction documents must demonstrate that the estimated annual energy use for the envelope in the energy analysis submitted as part of the initial filing is not exceeded.

§9. Section 106.13 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.13 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State.*" In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§10. Section 1301.1.1 of the New York city building code, of chapter 7 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§11. Section 106.10 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the

department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§12. Section 313.1 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

313.1 General. Equipment efficiencies shall be in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§13. Section 607.2 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2 Hot water supply temperature maintenance. Where the developed length of hot water piping from the source of hot water supply to the farthest fixture exceeds 20 feet (6096 mm), the hot water supply system shall be provided with a method of maintaining the temperature in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§14. Section 607.2.1 of the New York city plumbing code, of chapter 6 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

607.2.1 Piping insulation. Circulating hot water system piping shall be insulated in accordance with the New York state energy conservation construction code] *New York City Energy Conservation Code*.

§15. Section 106.8 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.8 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State.*" In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, and service water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.
2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§16. Section 301.2 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§17. Section 605.3 of the New York city fuel gas code, of chapter 9 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

605.3 Combustion Air Supply. The requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply shall be followed.

§18. Section 106.10 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

106.10 Energy efficiency. Construction documents shall include [a statement by the registered design professional of record that: "To the best of my knowledge, belief and professional judgment, these plans and specifications are in compliance with the *Energy Conservation Construction Code of New York State*." In addition, the following requirements shall apply:

1. A lead energy professional shall be identified for each project, who shall draw the relevant information regarding envelope, mechanical systems, service

water heating system and lighting and power systems from construction documents into an energy analysis. The energy analysis shall balance total energy consumption of all systems in accordance with the *Energy Conservation Construction Code of New York State* and shall be signed and sealed by the lead energy professional.

2. The format for the energy analysis shall be as established in the *Energy Conservation Construction Code of New York State*, or as approved by the department, and shall comprise a sheet within the drawing set. Supporting documentation shall be available within the drawing set or upon request of the department] compliance documentation as required by the *New York City Energy Conservation Code*.

§19. The definition of Unusually Tight Construction in section 202 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

UNUSUALLY TIGHT CONSTRUCTION. Construction meeting all of the following requirements:

1. Walls exposed to the outside atmosphere having a continuous water vapor retarder with a rating of 1 perm (57 ng/s • m^2 • Pa) or less with openings gasketed or sealed; and
2. Openable windows and doors meeting the air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, Section 802.3.1; and

3. Caulking or sealants are applied to areas, such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines, and at other openings.

§20. Section 301.2 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

301.2 Energy utilization. Heating, ventilating and air-conditioning systems of all structures shall be designed and installed for efficient utilization of energy in accordance with the [*Energy Conservation Construction Code of New York State]* *New York City Energy Conservation Code*.

§21. Exception 3 of section 303.3 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

3. Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Section 703. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* and equipped with an approved self-closing device.

§22. Section 312.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

312.1 Load calculations. Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall be determined in accordance with the procedures described in the ASHRAE Handbook of Fundamentals. Heating and cooling loads shall be adjusted to account for load reductions that are achieved when energy recovery systems are utilized in the HVAC system in accordance with the ASHRAE Handbook - HVAC Systems and Equipment. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in Chapter 3 of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code.* Heating and cooling system design loads for the purpose of sizing systems, appliances and equipment shall also comply with the requirements of Section 1204 of the *New York City Building Code.*

§23. Section 514.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

514.1 General. Energy recovery ventilation systems shall be installed in accordance with this section. Where required for purposes of energy conservation, energy recovery ventilation systems shall also comply with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code.*

§24. Section 603.9 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

603.9 Joints, seams and connections. All longitudinal and transverse joints, seams and connections in metallic and nonmetallic ducts shall be constructed as specified in

SMACNA *HVAC Duct Construction Standards—Metal and Flexible* and SMACNA *Fibrous Glass Duct Construction Standards* or NAIMA *Fibrous Glass Duct Construction Standards*. All longitudinal and transverse joints, seams and connections shall be sealed in accordance with the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§25. Section 604.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

604.1 General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§26. Section 903.5 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

903.5 Combustion air supply. All installations of factory-built fireplaces shall comply with the requirements of the [*Energy Conservation Construction Code of New York* State] *New York City Energy Conservation Code* concerning combustion air supply.

§27. Section 905.4 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

905.4 Combustion air supply. All fireplace stoves and room heaters shall comply with the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code* concerning combustion air supply.

§28. Section 1204.1 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.1 Insulation characteristics. Pipe insulation installed in buildings shall conform to the requirements of the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*, shall be tested in accordance with ASTM E 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1.

§29. Section 1204.2 of the New York city mechanical code, of chapter 8 of title 28 of the administrative code of the city of New York, as added by local law number 33 for the year 2007, is amended to read as follows:

1204.2 Required thickness. Hydronic piping shall be insulated to the thickness required by the [*Energy Conservation Construction Code of New York State*] *New York City Energy Conservation Code*.

§30. If any section, subdivision, paragraph, item, sentence, clause, phrase or other portion of this local law is for any reason declared unconstitutional or invalid, in whole or in part, by any court of competent jurisdiction, such portion shall be deemed severable, and such unconstitutionality or invalidity shall not affect the validity of the remaining portions of this law, which remaining portions shall continue in full force and effect.

§31. This local law shall take effect on January 1, 2010; provided, that the commissioner of buildings shall take all actions necessary to implement this local law, including the promulgation of rules, on or before such effective date.

NYC Proposed Legislation:

Local 94 of the IUOE and the Central Labor Council respect and applaud the intent of the City Council and legislators in their efforts to promote Energy Conservation, Sustainability and High Performance Buildings in New York City. However, we have concerns about the architecture, mechanisms and processes that are outlined in the current revisions of the proposed legislation. This endeavor can only be successful if the process can be appropriately implemented and executed in the complex New York City business and residential environment.

In true New York City fashion, this plan will only be realized utilizing a team approach that involves property owners, property managers, the local engineering community, building operators, construction trades and city agencies. It is a complex process that cannot be rushed to legislation without the appropriate planning, analysis and input from all stakeholders. Without buy-in and cooperation from key participants, the plan will be fraught with difficulties and roadblocks, leading to limited success at best.

To this end we offer the following recommendations for alteration and additions to the existing proposed legislation:

Please see the attached revised Job Functions Template with suggested qualifications and certifications for participants in the plan. However, while we offer these suggestions, we are concerned with the ability to integrate these profiles into the current architecture of the legislation. Currently there are inconsistencies, omissions and "disconnects" within the major pieces of legislation.

For example:

1. The definitions of required roles in the process are not consistent throughout the different pieces of legislation and, in some cases, are not clearly defined.
2. Int_No_476-A: There are no specified qualifications for the entity performing the Benchmarking with the EPA Portfolio Manager. While the Benchmarking process may not seem like an extraordinarily complicated task and there are no current certification processes for participating parties, the Benchmarking step is critical to the success of the NYC Energy Legislation process. Not only does it define the baseline energy performance of the buildings, but it appears to be the intent of the legislation to use the yearly benchmarked performance to verify the sustainability of the energy conservation measures implemented as part of the Audit, Retro-commissioning and Retrofit processes that are required every ten years. This is certainly a significant importance tied to the benchmarking task.
   2.1. While the actual process of entering data into the Portfolio Manager and producing a benchmark is fairly simple, in order to produce an **accurate** benchmark, the Portfolio Manager needs to be provided with accurate information about the utilization of the building as well as the energy inputs. Only personnel with intimate knowledge of the building systems, occupancy, utilization and schedules, along with a clear understanding of the benchmarking

process can produce an accurate and lasting benchmark through the Portfolio Manager. This is a classic example of the "garbage in/garbage out" axiom. The benchmarking process depends upon being able to benchmark a building to truly similar properties. If the correct description data is not entered into the Portfolio Manager, it will be benchmarked against dissimilar buildings leading to an inappropriate benchmark score.

2.2. Operating Engineers have the knowledge and experience necessary for proper input into the Portfolio Manger.

2.3. There is currently no "certification" that we can identify to qualify a person to properly utilize the EPA Portfolio Manager to benchmark a NYC high rise commercial office building or a NYC Multifamily facility. In fact, the EPA just recently added the capability to benchmark Multifamily buildings and we are sure there are some idiosyncrasies involved with proper benchmarking of such properties.

2.4. In light of the above issues, we suggest that Local 94 work with the NYC legislators and NYSERDA to establish a certification process based on a short educational course with an appropriate short examination that will measure a candidates experience and qualifications to properly use the EPA Portfolio Manager to obtain an appropriate benchmark to be used as a metric for monitoring sustainable energy efficiency.

3. Int_No_967 Defines an "ENERGY PROFESSIONAL" as "An approved agency meeting the qualifications established by department rules to perform energy audits."
   3.1. Is this an "agency" or an individual? How can qualifications that are usually attributed to individuals (like those associated with an energy auditor) be assigned to an agency?
   3.2. As defined in this legislation, this is the entity responsible for performing or supervising the energy audit.
   3.3. This position needs to be more clearly defined.
4. In Int_No_564-A there is reference to a "registered design professional" and a "lead energy professional". These entities are not defined anywhere in the legislation, nor are they mentioned in other related pieces such as Int_No_967.
   4.1. These entities need to be clearly defined and incorporated into all components of related legislation.
5. In Int_No_967 Audits, Retro-Commissioning and Retrofits are lumped together without clear articulation and differentiation of what skills, qualifications, certifications and organizations should be required for these related but very different tasks in the energy conservation process. (NOTE: This same observation and associated recommendations are echoed in the REBNY response to the legislation.)
   5.1. These related disciplines should be segregated with appropriate qualifications defined for those participating in each segment of the process.
   5.2. All of these processes will require participation from several qualified parties; e.g.
      5.2.1. Energy Audits: An ASHRAE Level II Audit should be supervised and certified by a Lead Energy Professional. However, in the interest of expediency, efficiency and completeness, an Energy Audit must take advantage of the knowledge and experience of the Building Operators and

Building Managers. The Responsible Auditor must work together with all of these factions to produce a viable Audit Analysis and Report. The IUOE training programs have been educating Operating Engineers on the processes and requirements of Energy Auditing through both IUOE developed curriculum and locally enhanced courses for over ten years. It has long been recognized by the professional engineering community that building operators are an invaluable source of operational information critical to the energy auditing process. Aside from adding time and cost to the auditing process, it would be irresponsible for the energy auditor to ignore this valuable source of information and facility evaluation.

5.2.2. Retro-commissioning: Building Operators have been practitioners of Retro-commissioning for many years without the official title. There is no party better equipped to exercise building systems, verity sequences of operation and correct operational deficiencies than the Building Operators. This process requires a somewhat different, albeit overlapping, skill set than Energy Auditing.

5.2.3. Retrofits: The actual process of building retrofits requires a concerted, coordinated effort among architects, design engineers, building management, operating personnel and a plethora of building and construction trades to affectively implement energy retrofits in commercial buildings.

5.2.4. The broad brush approach to these processes as currently outlined in the proposed legislation simply will not appropriately cover the complexities of the tasks.

5.2.5. The tasks of Energy Audits, Retro-commissioning and Retrofits should be separately defined and the qualifications for each discipline represented separately as well. A team approach to these tasks, using qualified participants for segments of each task is the only way to get quality results in a cost efficient manner.

In light of these overall issues, we recommend a complete review of the proposed legislation and we offer the specific language changes as noted in the attached revisions of the proposed laws for some sections that are easily changed. Note that the changes were made with the Microsoft Word tracking feature enabled so that changes are easily identified.

TEMPLATE FOR JOB FUNCTIONS ASSOCIATED WITH THE GREENER, GREATER BUILDINGS PLAN

Lead Energy Professional's profile

Description	Assess energy usage, identify and develop modifications and improvements to central systems of buildings. This includes visually checking HVAC, lighting, ducts, and weather-stripping

Skills	▪ Analyze building systems and identify EE opportunities ▪ Develop, quantify and describe Energy Conservation Measures, both low cost/no cost O & M Measures and Capital Measures ▪ Cost estimation ▪ Energy modeling ▪ Skilled with analytical technologies (e.g. thermography, blower door test) ▪
Qualifications/ certifications	▪ Prof Engineer (PE) ▪ Certified Energy Manager (CEM) ▪ Certified Energy Auditor (CEA) ▪ BPI MF Bldg Analyst ▪ Three years successful experience in conducting ASHRAE Level II or Level III Energy Audits in urban, high rise, commercial or residential facilities ▪
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires assistance from a team with different skill sets ▪ Keep current w/ newest technologies ▪ Required continuing edu. units ▪

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TEMPLATE FOR JOB FUNCTIONS ASSOCIATED WITH THE GREENER, GREATER BUILDINGS PLAN

Energy Professional's profile

Description	Assess or assist in assessing energy usage, identifying and developing modifications and improvements to central systems of buildings. This includes visually checking HVAC, lighting, ducts, and weather-stripping as well as understanding sequences of operation, building occupancy and utilization.
Skills	▪ Analyze building systems and identify EE opportunities ▪ Familiarity with processes of an ASHRAE Level II Audit ▪ Skilled with analytical technologies (e.g. thermography, blower door test) ▪
Qualifications/ certifications	▪ Prof Engineer (PE) ▪ Certified Energy Mnger (CEM) ▪ Energy Mngr in Training (EMIT) ▪ Certified Energy Auditor (CEA) ▪ Certified Energy Auditor in Training (CEAIT) ▪ BPI MF Bldg Analyst ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC) ▪ ▪ (Add the other certifications for appropriate trades)
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires a team with different skill sets ▪ Keep current w/ newest technologies ▪

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Retro-commissioners' profile

Description	Conduct non-capital work such as repairs, maintenance, adjustments, changes to controls or operational improvements that optimize a building's energy performance

Skills	▪ Understand bldg systems ▪ Strong knowledge of bldg science ▪ Testing and Balancing ▪ Knowledge of building operations & maintenance ▪ Experience with building and equipment operation and sequence of operation
Qualifications/ certifications	▪ Professional Engineer ▪ Nat'l Environmental Balancing Bureau (NEBB) ▪ Degree from Maritime Academy ▪ Navy or merchant marine engineer ▪ Certified Building Commissioning Professional (CBCP) ▪ Certified Energy Mnger (CEM) ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC)
Additional comments	▪ Skills/qualifications differ by bldg sector and size ▪ Requires a team with different skill sets

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Building operators' profile

Description	Review major components and maintenance req'ts of the facility's electrical, HVAC, lighting systems; develop energy consumption profiles; optimize equipment for energy efficiency

Skills	▪ Understand bldg systems ▪ Strong knowledge of bldg science ▪ Energy awareness ▪ HVAC knowledge ▪ [ ]? ▪
Qualifications/ certifications	▪ Bldg Owners & Mngrs Inst, (BOMI) Systems Maintenance Technician ▪ Bldg Owners & Mngrs Inst, (BOMI) Systems Maintenance Administrator ▪ BPI Energy Eff Bldg Op ▪ Bldg Operator Cert'n (BOC)? ▪ USGBC LEED-EB? ▪ ASHRAE, Operations & Perf Mngt Prof (OPMP)? ▪ Int'l Facilities Mngt Assoc, Cert'd Facility Mngr? ▪ Stationary Engineer? ▪ Certified Energy Specialist (CES) ▪ NYC Stationary Engineers License ▪ NYC Refrigeration System Operating License ▪ Building Operator Certification (BOC) ▪
Additional comments	▪ Skills and qualifications differ by bldg sector and size ▪ Keep current w/ newest technologies ▪ ▪

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Green Construction Workers' profile

Description	Includes such trades as: electricians, carpenters, pipefitters, plumbers, insulators, boilermakers, insulation blowers, HVAC technicians, general laborers; varies from entry- or apprentice-level to skilled/journeyman and managers

Skills	▪ Applied, hands-on skills ▪ Understand bldg systems ▪ Strong knowledge of bldg science? ▪ [ ]? ▪
Qualifications/ certifications	▪ BPI? ▪ Training programs for trades? ▪ Licensed trades? ▪ [ ]? ▪
Additional comments	▪ Skills and qualifications differ by profession, bldg sector and size ▪ Differentiate between universal skills vs. specialized skill ▪ USGBC green construction curriculum ▪ Keep current w/ newest technologies ▪ Required continuing edu. units? ▪ [ ]? ▪

Top 10 most recommended residential upgrades

Improvements	Examples	Who is doing this work	Potential skill gaps or skill set improvement
Efficient faucets & showerheads	▪ Low-flow showerheads ▪ Low-flow aerators	▪ Bldg operators ▪ Bldg supers ▪ Gen contractors? ▪ Plumbers?	▪
Lighting fixture upgrades	▪ Upgrade existing lighting ▪ High-eff. fluorescent ▪ Exterior lighting	▪ Electricians ▪ Lighting commissioners? ▪ Certified lighting efficiency prof's?	▪ [ ]? ▪
Exterior weather-stripping & sealing	▪ Weatherstrip/airseal exterior doors ▪ Seal A/C sleeves ▪ Replace windows ▪ Weatherseal windows ▪ Seal envelope penetrations	▪ Weatherization contractors ▪ [ ]?	▪ [ ]? ▪
DHW controls	▪ Decrease DHW temp ▪ DHW controls	▪ Bldg supers? ▪ Bldg operators?	▪ Proper adjustment of setpoints? ▪
Exhaust fan timers	▪ Install timers	▪ Electricians? ▪ Gen contractors?	▪ [ ]? ▪
Lighting controls	▪ Install lighting occupancy sensors ▪ Bi-level lighting	▪ Electricians	▪ Proper adjustment of sensors? ▪ [ ]? ▪
Pipe insulation	▪ DHW tank, insulate ▪ DHW piping	▪ Pipe insulators	▪ [ ]? ▪
Energy mgmt sys (EMS)	▪ Install EMS	▪ Controls technicians?	▪ [ ]? ▪
Boiler cleaning and tuning	▪ Burner, clean / tune ▪ Boiler, setpoint	▪ Bldg operators ▪ Bldg supers	▪ [ ]? ▪
Lightbulb upgrades (e.g. CFLS)	▪ Install CFLs	▪ Bldg operators ▪ Bldg supers ▪ Electricians	▪ [ ]? ▪

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Top 10 most recommended non-residential upgrades

Improvements	Examples	Who is doing this work	Potential skill gaps?
Demand controlled ventilation (DCV)	▪ Garage DCV ▪ Economizer control & DCV	▪ Electricians ▪ Mechanical tradesmen ▪ Gen. contractors ▪ Bldg operators	▪ Coordination of trades? ▪ [ ]?
Building mgmt systems	▪ Bldg mnmgt systems ▪ Direct digital control system	▪ Control technicians ▪ Electricians? ▪ Mechanical tradesmen?	▪ Coordination of trades? ▪ [ ]?
Retro-commissioning	▪ Optimization of existing systems (chiller, fan, pump, static pressure, cooling tower)	▪ Building maintenance staff ▪ Bldg operators ▪ Various trades, as required	▪ Current technologies? ▪ [ ]?
Mechanical controls	▪ Boiler controls ▪ Heating system controls	▪ Mechanical tradesmen? ▪ Electricians ▪ Bldg operators	▪ Proper adjustment of controls? ▪ [ ]?
Lighting controls	▪ Day lighting ▪ Local lighting controls ▪ Occupancy sensors	▪ Electricians ▪ Bldg operators	▪ Proper adjustment of sensors? ▪ [ ]?
Variable speed drives (VSD)	▪ VSD on condenser water pumps ▪ Premium eff motors ▪ VSD chiller water pumps	▪ Mechanical tradesmen ▪ Electricians ?	▪ Optimization of motors? ▪ [ ]?
Insulate pipes	▪ Insulate steam pipes ▪ Insulate DHW piping	▪ Pipe insulators ▪ Gen. contractors? ▪ Bldg operators	▪ [ ]?
Envelope penetrations	▪ Air sealing ▪ Ext weather-stripping	▪ Gen. contractors?	▪ [ ]?
Replace lights	▪ CFLs ▪ High-eff fluorescents	▪ Electricians ▪ Building operators ▪ Building supers	▪ [ ]?
Water conservation	▪ Low-flow aerators	▪ Plumbers ▪ Bldg operators ▪ Gen. contractors	▪ [ ]?

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Design professionals (e.g. interiors, lighting) & architects' profile

Description	Includes such professions as architects, MEP (mechanical, electrical & plumbing) engineers, lighting designers, interior designers

Skills	▪ Understanding of energy codes ▪ Understanding of building codes ▪ [ ]?
Qualifications/ certifications	▪ Professional license ▪ Codes training units? ▪ [ ]?
Additional comments	▪ DOB enforcement of energy codes soon ▪ NYC Lighting Center ▪ Keep current w/ newest technologies ▪ Required continuing edu. units? ▪ [ ]?

Proposed Int. No. 476-A

By Council Members Mark-Viverito, Recchia Jr., Avella, Brewer, Fidler, Gentile, James, Liu, Martinez, Nelson, Seabrook, Weprin, White Jr., Garodnick, Lappin and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to benchmarking the energy and water efficiency of buildings.

Be it enacted by the Council as follows:

Section 1. Chapter 3 of title 28 of the administrative code of the city of New York is amended by adding a new article 309 to read as follows:

ARTICLE 309

BENCHMARKING ENERGY AND WATER USE

§ 28-309.1 General. The energy and water use of city buildings and covered buildings shall be benchmarked in accordance with this article.

§ 28-309.2 Definitions. As used in this article, the following terms shall have the following meanings:

BENCHMARK. To input and submit to the benchmarking tool the total use of energy and water for a building for the previous calendar year and other descriptive information for such building as required by the benchmarking tool.

BENCHMARKING TOOL. The internet-based database system developed by the United States environmental protection agency, and any complementary interface designated by the office of long-term planning and sustainability, to track and assess the energy and water use of certain buildings relative to similar buildings.

Benchmarking Agent: A person with the appropriate training, experience and certification to properly use the EPA Portfolio Manager to obtain an accurate benchmark for a New York City commercial or residential high rise facility. Such Benchmark to be used for evaluation of a

facility's relative energy efficiency and an ongoing metric for monitoring sustainable energy efficiency in NYC buildings.

CITY BUILDING. A building that is more than 10,000 gross square feet, as determined by the department of finance, that is owned by the city or for which the city regularly pays all or part of the annual energy bills, provided that two or more buildings on the same tax lot shall be deemed to be one building.

Exception: The term "city building" shall not include:

1. Any building not owned by the city in which the city is a tenant and for which the city does not pay all the energy bills;

2. Any building owned by the city that participates in the tenant interim lease apartment purchase program; or

3. Any building owned by the city that (i) is 50,000 gross square feet or less, as determined by the department of finance, and (ii) participates in a program administered by the department of housing preservation and development.

COVERED BUILDING. A building that is not a city building and that exceeds 50,000 gross square feet, as determined by the department of finance, or two or more buildings on the same tax lot that together exceed 50,000 gross square feet, and provided that no building owned by the city shall be deemed to be a covered building.

DWELLING UNIT. A single unit consisting of one or more habitable rooms, occupied or arranged to be occupied as a unit separate from all other units within a building, and used primarily for residential purposes and not primarily for professional or commercial purposes.

ENERGY. Electricity, natural gas, fuel oil and steam.

OWNER. The owner of record, provided that "owner" shall be deemed to include: (i) the net lessee in the case of a building subject to a net lease with a term of at least forty-nine years, inclusive of all renewal options, (ii) the board of managers in the case of a condominium, and (iii) the board of directors in the case of a cooperative apartment corporation.

TENANT. Any tenant, tenant-stockholder of a cooperative apartment corporation, condominium unit owner or other occupant.

§ 28-309.3 Benchmarking required for city buildings. No later than July 1, 2010, and no later than every May first thereafter, any city building shall be benchmarked by a Benchmarking Agent representing the agency or entity primarily responsible for the management of such building, in coordination with the department of citywide administrative services with respect to energy use, and with the department of environmental protection with respect to water use. Benchmarking of water use shall not be required unless the building is metered by the New York city water board. The city shall maintain such documents as the department determines are necessary for the purpose of carrying out the provisions of this article.

§ 28-309.4 Benchmarking required for covered buildings. The owner of a covered building shall annually benchmark such covered building no later than July 1, 2010, and no later than every May first thereafter through the work of a Benchmarking Agent. Benchmarking of water use shall not be required unless the building is metered by the New York city water board.

§ 28-309.4.1 Obligation to request and to report information. Where a unit or other space in a covered building, other than a dwelling unit, is occupied by a tenant and such unit or space is separately metered by a utility company, the owner of such building shall request from such tenant information relating to such tenant's separately metered energy use for the previous calendar year and such tenant shall report such information to such owner.

§ 28-309.4.1.1 Owner solicitation of tenant information. Such owner shall request information relating to such tenant's separately metered energy use for the previous calendar year no earlier than January first and no later than January thirty-first of any year in which the owner is required to benchmark such building. The office of long-term planning and sustainability may require that such owner provide such tenant with a form designated by the office of long-term planning and sustainability to report such information.

§ 28-309.4.1.2 Tenant reporting of information. Such tenant shall report information relating to such tenant's separately metered energy use for the previous calendar year no later than February fifteenth of any year in which the owner is required to benchmark such building. Such information shall be reported in a form and manner determined by the office of long-term planning and sustainability.

§ 28-309.4.1.3 Provision of information prior to vacating a unit or other space. Where such owner receives notice that such tenant intends to vacate such unit or other space before reporting information in accordance with sections 28-309.4.1 and 28-309.4.1.2, such owner shall request information relating to such tenant's energy use for any period of occupancy relevant to such owner's obligation to benchmark. Any such tenant shall report such information to the owner of such building prior to vacating such unit or other space or, if such information is not available prior to vacating such unit or other space, as soon as practicable thereafter, regardless of whether such owner has requested information pursuant to this section. Such information shall be reported in a form and manner determined by the office of long-term planning and sustainability.

§ 28-309.4.1.4 Continuing obligation to benchmark. The failure of any or all tenants to report the information required by sections 28-309.4.1, 28-309.4.1.2, and 28-309.4.1.3 to the owner shall not relieve such owner of the obligation to benchmark pursuant to this article, provided that such owner shall not be required to benchmark such information not reported by a tenant unless otherwise available to such owner.

§ 28-309.4.2 Preservation of documents, inspection, and audit. Owners of covered buildings shall maintain such records as the department determines are necessary for carrying out the purposes of this article, including but not limited to energy and water bills and reports or forms received from tenants. Such records shall be preserved for a period of three years, provided that the commissioner may consent to their destruction within that period or may require that such records be preserved longer than such period. At the request of the department, such records shall be made available for inspection and audit by the department at the place of business of the owner or at the offices of the department during normal business hours.

§ 28-309.4.2 Violations. It shall be unlawful for the owner of a covered building to fail to benchmark pursuant to section 28-309.4. The commissioner shall classify such violation as a lesser violation.

§ 28-309.5 Direct upload. Information shall be directly uploaded to the benchmarking tool in accordance with the following:

§ 28-309.5.1 Direct upload by a utility company or other source. The office of long-term planning and sustainability shall encourage and facilitate any utility company or any other source authorized by the office of long-term planning and sustainability to upload directly to the benchmarking tool, as soon as practicable, information necessary to benchmark a

building. Where information is uploaded directly to the benchmarking tool by a utility company or other authorized source, owners and tenants shall not be obligated to request and report such information pursuant to section 28-309.4.1.

§ 28-309.5.2 Direct upload by the department of environmental protection. The department of environmental protection shall upload directly to the benchmarking tool information on water use at all buildings metered by the New York city water board that are subject to the benchmarking requirements of this article.

§ 28-309.6 Suspension. The director of the office of long-term planning and sustainability may suspend all or part of the requirement to benchmark pursuant to this article upon a written finding that a technological deficiency in the benchmarking tool precludes compliance with this article. The director of the office of long-term planning and sustainability may lift all or part of any such suspension upon a written finding that such deficiency has been corrected. The office of long-term planning and sustainability shall notify the city council, the department, the department of citywide administrative services, the department of environmental protection and the department of finance promptly upon issuing a suspension or lifting a suspension pursuant to this section.

§ 28-309.7 Notification and transmission of information. The department of finance shall:

1. Annually notify owners of covered buildings of their obligation to benchmark pursuant to section 28-309.4, provided that the failure of the department of finance to notify any such owner shall not affect the obligation of such owner to benchmark pursuant to such section.

2. Notify owners of covered buildings of any suspension or lifting of a suspension pursuant to section 28-309.6.

3. Make available to the department information regarding owners of covered buildings for which no benchmarking information was generated by the benchmarking tool.

§ 28-309.8 Disclosure. The department of finance shall make information generated by the benchmarking tool available to the public no later than September 1, 2011, and no later than every September first thereafter for city buildings, no later than September 1, 2012, and no later than every September first thereafter for covered buildings whose primary use is not residential, as determined by the department of finance, and no later than September 1, 2013, and no later than every September first thereafter for covered buildings whose primary use is residential, as determined by the department of finance. Such information may include, but need not be limited to: (i) the energy utilization index, (ii) carbon dioxide emissions per square foot, (iii) the water use per square foot, (iv) where available, a rating that compares the energy and water use of the building to that of similar buildings, and (v) a comparison of data across calendar years for any years such building was benchmarked. Information generated by the benchmarking tool for the 2009 calendar year for city buildings and covered buildings, for the 2010 calendar year for covered buildings, and for the 2011 calendar year for covered buildings whose primary use is residential, as determined by the department of finance, shall not be disclosed.

Exception: Information generated by the benchmarking tool for a covered building that contains a data center, television studio, or trading floor that exceeds a percentage of the gross square footage of any such building as determined in rules promulgated by the office of long term planning and sustainability shall not be disclosed until the office of long term planning and sustainability determines that the benchmarking tool can make adequate adjustments for such facilities.

§ 28-309.9 Report. No later than December 31 of 2010, 2011 and 2012, respectively, the office of long-term planning and sustainability shall prepare, submit to the mayor and city council, and post on the internet a report reviewing and evaluating the administration and enforcement of this article and analyzing data obtained from the benchmarking tool. Such report shall contain information regarding: (i) the energy and water efficiency of buildings in the city, (ii) accuracy of benchmarked data, (iii) compliance with the requirements of this article, (iv) any administrative and legislative recommendations for strengthening the administration and enforcement of this article, and (v) such other information and analysis as the office of long-term planning and sustainability deems appropriate.

§ 28-309.10 Rules. The department, the department of finance and the office of long-term planning and sustainability may promulgate such rules as deemed necessary to carry out the provisions of this article.

§ 2. This local law shall take effect immediately.

Int. No. 967

By Council Members Gennaro, Brewer, Comrie, Dickens, Fidler, Garodnick, Gioia, James, Koppell, Lappin, Martinez, Mitchell, Palma, Recchia Jr., Reyna, Rivera, Stewart Weprin, Nelson, Liu and Yassky

A Local Law to amend the administrative code of the city of New York, in relation to requiring energy audits, retro-commissioning and retrofits of building systems.

Be it enacted by the Council as follows:

Section 1. Chapter 3 of title 28 of the administrative code of the city of New York is amended by adding a new article 308 to read as follows:

ARTICLE 308

AUDITS, RETRO-COMMISSIONING AND RETROFITS OF BUILDING SYSTEMS

§28-308.1 Definitions. As used in this article, the following terms shall have the following meanings:

COVERED BUILDING. A building that exceeds 50,000 gross square feet, as determined by the department of finance, or two or more buildings on the same tax lot that together exceed 50,000 gross square feet.

CENTRAL SYSTEM. (NOTE: See REBNY suggestion on terminology.) Building systems or components thereof, as specified by the department, that are part of the building operation and control by the owner and use energy or impact energy consumption including:

1. The building envelope.

2. Equipment located within or supplying the common, public, service and utility portions of the building.

3. Each building system, including terminal units up to the point at which it connects to equipment installed by any tenant (other than a net lessee for a term of 49years or

more, inclusive of renewal options), condominium unit owner or cooperative unit shareholder.

Such systems shall not include power, lighting, appliances or electronics systems located within spaces occupied by tenants (other than a net lessee for a term of 49 years or more, inclusive of renewal options), condominium unit owners or cooperative unit shareholders.

ENERGY AUDIT. A systematic process of identifying and developing modifications and improvements to central systems of covered buildings based on the level II audit set forth in the 2004 edition of Procedures for Commercial Building Energy Audits published by the American Society of Heating, Refrigerating and Air-conditioning Engineers Inc.(ASHRAE) as such process may be amended by the rules of the department. An audit shall include:

1. All reasonable retro-commissioning and retrofit measures that would, if implemented, reduce energy use and/or the cost of operating the building.

2. For each measure, the associated annual energy savings, the cost to implement, the simple payback, and Life Cycle Cost Benefit as calculated by methods determined by the department.

3. The building's benchmarking scores as per the EPA Portfolio Manager tool.

4. An accurate end-use break-down for initial usage and predicted energy savings.

5. An assessment of energy used outside the central system which impacts the energy consumption of the central system, however no retro-commissioning or retrofit measures will be required to be performed on equipment that is not part of the central system.

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ENERGY EFFICIENCY REPORT. The report required to be filed pursuant to section 28-308.4 of this article.

ENERGY MODELING. The use of an energy software program, approved by the department, to predict energy consumption..

ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules to participate to a significant extent in the performance of energy audits. (Note: Qualifications to be listed here or in an exhibit after finalized.)

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FINANCIALLY DISTRESSED BUILDING. A covered building that meets one of a list of quantitative thresholds or that participates in a city-managed financial assistance program, as determined in rules to be promulgated by an agency designated by the mayor.

LEAD ENERGY PROFESSIONAL. An individual meeting the qualifications established by department rules to conduct, direct, supervise and certify an energy audit. (Note: Qualifications to be listed here or in an exhibit after finalized.)

LIFE CYCLE COST BENEFIT: (NOTE: to be defined.)

OWNER. The owner of record of a covered building, except that in the case of a net lease of an entire building for a term of 49 years or more, inclusive of renewal options, the term owner shall refer to the net lessee and in the case of a covered building held in cooperative or condominium form of ownership, the term owner shall refer to the board of managers in the case of a condominium and the board of directors in the case of a cooperative apartment corporation.

RETRO-COMMISSIONING MEASURES. Non-capital work such as repairs, maintenance, adjustments, changes to controls or operational improvements that optimize

a building's energy performance, and that have been identified by a systematic process of investigating and analyzing the performance of a building's equipment and systems that impact energy consumption.

RETROFIT MEASURES. Capital alterations of building systems involving the installation of new equipment, insulation or other proven energy efficiency technologies that reduce energy consumption and improve the efficiency of such systems.

SIMPLE PAYBACK. The number of years it takes for the net projected annual energy savings to pay back the incremental amount invested in the energy efficiency measure, as determined by dividing the incremental investment by the net annual energy savings inclusive of changes in Operation and Maintenance costs.

SYSTEM. A building assembly made up of various components that serve a specific function, including but not limited to exterior walls, windows, doors, roofs, ceilings, floors, lighting, piping, ductwork, insulation, HVAC system equipment or components, electrical appliances and plumbing appliances.

§28-308.2 Energy audits required. The owner of a covered building shall ensure that an energy audit is performed on the central systems of such building no earlier than three years prior to the date on which such building's energy efficiency report is filed with the department pursuant to this article. Such energy audit must be performed by or under the supervision of a Lead Energy Professional, utilizing the services and input of available Energy Professionals, in accordance with rules promulgated by the department.

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Exceptions. No energy audit, retro-commissioning or retrofit is required if the building complies with one of the following exceptions:

1. The actual performance of the covered building, measured through an analysis of energy bills over a two year period within the three year period prior to the filing of an energy efficiency report, meets or exceeds the performance predicted by an energy model of such building having the same systems as such building and meeting the requirements of the New York city energy conservation code (whether or not the covered building is exempt from such code) in effect within 3 years prior to the due date of the building's energy efficiency report. The comparison of performance shall be determined by the energy cost budget method in accordance with rules promulgated by the department.

2. The covered building has received an EPA Energy Star label for at least two of the three years preceding the filing of the building's energy efficiency report.

3. The covered building has been certified under the Leadership in Energy and Environmental Design (LEED) 2009 rating system for Existing Buildings published by the United States Green Building Council or other LEED rating system for existing buildings, as determined by the department, within two years prior to the filing of the building's energy efficiency report.

§28-308.2.1 Contents of audit report. The Lead Energy Professional shall prepare and sign a report of the energy audit. The audit report shall include such information relating to the audit as shall be specified in the rules of the department including but not limited to (i) the date or dates that the audit was performed (ii) a list of all reasonable retro-commissioning and retrofit measures available to the owner, (iii) the costs and energy savings associated with each measure (iv) a list of all reasonable

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retro-commissioning and retrofit measures available to the owner with a simple payback of not more than 7 years, (v) at the option of the owner, a list of retro-commissioning and retrofit measures that when combined equal or exceed the overall reduction in energy consumption of all the retrofit and retro-commissioning measures with a simple payback of not more than 7 years.

§28-308.2.1.1 Compliance with landmarks laws. The cost estimates for retrofit and retro-commissioning measures in covered buildings that are regulated by any city, state or federal law regulating landmarks and historic buildings shall include all additional costs necessary for the proposed work to comply with such law.

§28-308.3 Retro-commissioning and retrofit measures required. The owner of a covered building shall ensure that all the retro-commissioning and retrofit measures identified in the audit report as having a simple payback of not more than 7 years or, at the option of the owner, retro-commissioning and retrofit measures that when combined equal or exceed the overall reduction in energy consumption of the retrofit and retro-commissioning measures with a simple payback of not more than 7 years, are performed by qualified individuals, contractors, agencies, etc., meeting the qualifications established by department rules to perform these services (Note: Qualifications to be listed here or in an exhibit after finalized.) on the systems of such building prior to the date on which such building's energy efficiency report is filed with the department pursuant to this article.

Exception. Where the owner determines post audit, in accordance with the rules of the department, that the actual cost of one or more of the retro-commissioning or retrofit measures may exceed the estimates set forth in the audit by more than 20 percent and that the simple payback for such measure or measures may exceed

7 years, the owner shall not be required to implement such measure or measures. The owner shall substantiate such determination in a manner to be set forth in the rules of the department.

§28-308.4 Energy efficiency report required. The owner of a covered building shall ensure that an energy efficiency report for such building, prepared and signed by a Lead Energy Professional, is submitted to the department on or within two years prior to the due date established pursuant to this section.

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Exceptions. 1. An owner of a covered building may apply for an extension of time to file an energy efficiency report if despite such owners good faith efforts, to be documented in such application, the owner is unable to complete required retro-commissioning and retrofit measures prior to the scheduled due date for such report. The commissioner may grant no more than 2 such extensions of no more than 1 year each. Extensions granted pursuant to this provision shall not extend the scheduled due dates for subsequent energy efficiency reports.

2. An owner of a covered building that qualifies as a financially distressed building may apply for extensions of time of not more than one year in each instance to submit an energy efficiency report to the department.

3. An owner of a covered building may apply for an extension of time to file an energy efficiency report if, despite the owners good faith efforts, to be documented in such application, the owner is unable to secure loans or grants to finance required retro-commissioning and retrofit measures prior to the scheduled due date for such report.