

**LOCAL LAWS  
OF  
THE CITY OF NEW YORK  
FOR THE YEAR 2005**

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**No. 86**

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Introduced by The Speaker (Council Member Miller) and Council Members Gennaro, Brewer, Clarke, Fidler, Gerson, Gioia, James, Koppell, Liu, Martinez, Nelson, Recchia, Sanders, Stewart, Weprin, Gonzalez, Yassky, Moskowitz, Reyna, Foster, Perkins, McMahon, Addabbo Jr., Monserrate, Gentile, DeBlasio, Baez, Palma, Katz, Avella, Reed, Jackson, Vallone, Jr., Quinn, Rivera, Barron, Lopez, Arroyo, Sears and The Public Advocate (Ms. Gotbaum).

**A LOCAL LAW**

**To amend the New York city charter, in relation to green building standards for certain capital projects.**

*Be it enacted by the Council as follows:*

Section 1. Statement of findings and purpose. Probably no urban activity has greater impact on human health and the environment than building construction and use. Enormous quantities of resources are used during building construction, renovation and operation, and the production of these resources has substantial environmental impacts. It is estimated that 40% of raw materials consumed globally are used for buildings. In addition, in the United States, commercial and residential buildings are responsible for approximately 65% of electricity consumption, 30% of greenhouse gas emissions, 12% of potable water use and 136 million tons of construction and demolition waste annually. Also, many indoor building materials release hazardous toxins, impairing indoor air quality and reducing occupant health and productivity.

Since most of New York City's electricity is produced within the City and many buildings use oil or natural gas for their heating and hot water, energy consumption in building operation translates into greater local pollution, including emissions of sulfur dioxide, nitrogen oxides, particulate matter, carbon dioxide, and mercury. These pollutants contribute to respiratory disease, heart disease, smog, acid rain, and climate change. Moreover, as energy demand rises, so does our reliance on dirty, inefficient power plants, as well as the nation's dependence on foreign oil and natural gas.

Modern architects and engineers can reduce the health and environmental impacts of buildings by designing "high-performance buildings" or "green buildings." The United States Green Building Council, the nation's foremost coalition of real estate and environmental organizations working to promote green buildings, has developed a green building rating system known as LEED (Leadership in Energy and Environmental Design). Buildings receive LEED certification if their designs score sufficient "points"

in five general design areas including siting, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality. Thousands of residential and commercial buildings, ranging from single-family homes to large corporate headquarters, have been designed and constructed throughout the United States utilizing green building principles. Significant local examples include 4 Times Square and 20 River Terrace. A recent study conducted for the State of California concluded that, on average, green buildings show a ten times return on the investment in green building design. This comprehensive analysis of 33 green buildings revealed an average green cost premium of less than 2%, with only a 0.66% premium for buildings that achieved the most basic level of LEED certification.

Numerous municipalities, including Atlanta, Austin, Boston, Boulder, Chicago, Dallas, Los Angeles, Portland (Oregon), San Diego, San Francisco, San José, and Seattle, have adopted LEED or have otherwise required that city-owned buildings be built according to green building criteria. Some localities have created incentive programs for privately-owned green building construction, including the use of direct subsidies, density bonuses and expedited permitting. Indeed, Boston will soon require private sector buildings of over 50,000 square feet to be LEED-certifiable.

In New York City, numerous governmental bodies have also embraced green building concepts. The Battery Park City Authority has begun utilizing green building guidelines modeled on LEED for all commercial and residential building construction in Battery Park City. The Department of Design and Construction has also developed High Performance Building Guidelines and has begun applying the guidelines for libraries and other facilities. The New York City Transit Authority has adopted green building guidelines for all new transit facilities, including the Second Avenue Subway. Moreover, the Lower Manhattan Development Corporation and the Port Authority of New York and New Jersey have developed sustainable design guidelines and have designated “environmental planning” as one of five general requirements for the redevelopment of the World Trade Center site and surrounding area.

Likewise, many states, such as California, Connecticut, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Rhode Island, have begun utilizing LEED for state-owned buildings. The State of New York provides tax credits for buildings that meet defined green building criteria and, under Executive Order 111, state agencies are directed to reduce energy use and carbon dioxide emissions and to utilize green building principles.

The City owns approximately 1,300 buildings and leases over 12.8 million square feet of office space, and this legislation will affect approximately \$12 billion in construction over the City’s ten-year capital plan. Considering the size of the City’s real estate portfolio, the Council finds that the use of green building criteria for City capital projects will substantially reduce New York City’s electricity consumption, air pollution and water use, as well as improve occupant health and worker productivity and encourage market transformation. The Council further finds that reducing overall energy demand through green building techniques will reduce our dependence on foreign oil. Finally, the Council finds that green buildings are a sound investment of public dollars. The Council’s financial analysis indicates that, without taking any other savings or social benefits into account, savings in water and energy cost will offset debt service payments on any increase in capital expenditures resulting from this legislation. Accordingly, the Council declares that it is reasonable and necessary to employ green building standards in the construction and renovation of City-owned and City-funded buildings and that these standards be utilized in an orderly and timely fashion.

§2. The New York city charter is amended by adding a new section 224.1, to read as follows:

§224.1 *Green building standards.* a. *As used in this section the following terms shall have the following meanings:*

(1) *The term "capital project" shall mean a capital project as defined in section 210 of this chapter that is paid for in whole or in part from the city treasury.*

(2) *The term "city agency" shall mean a city, county, borough, or other office, position, administration, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid, in whole or in part, from the city treasury.*

(3) *The term "construction work" shall mean any work or operations necessary or incidental to the erection, demolition, assembling, alteration, installing, or equipping of any building.*

(4) *The term "green building standards" shall mean design guidelines, a rating system or rules for constructing buildings that ensure site planning, water efficiency, energy efficiency and renewable energy, conservation of materials and resources and indoor environmental quality.*

(5) *The term "inflation" shall mean the annual twelve (12) month average of the consumer price index published by the United States department of labor.*

(6) *The term "LEED energy and atmosphere credit 1" shall mean the credit point under LEED for New Construction version 2.1 intended to achieve increased energy performance.*

(7) *The term "LEED green building rating system" shall mean a version of the Leadership in Energy and Environmental Design (LEED) building rating system published by the United States Green Building Council, not less stringent than the selected green building rating system, including a standard developed by or for the city consisting of practices and technologies derived from the LEED rating system that are reasonable and appropriate for building in New York city.*

(8) *The term "LEED water efficiency credit 3.2" shall mean the credit point under the LEED for New Construction version 2.1 intended to achieve water use reduction.*

(9) *The term "not less stringent" shall mean providing no less net environmental and health benefits.*

(10) *The term "rehabilitation work" shall mean any restoration, replacement or repair of any materials, systems and/or components.*

(11) *The term "selected green building rating system" shall mean the current and most appropriate building rating system published by the United States Green Building Council; provided, however, at the mayor's discretion, the term "selected green building rating system" shall mean New Construction version 2.1, Existing Buildings version 2 or Commercial Interiors version 2, whichever is most appropriate for the project under United States Green Building Council guidelines.*

(12) *The term "substantial reconstruction" shall mean a capital project in which the scope of work includes rehabilitation work in at least two of the three major systems, electrical, HVAC (heating, ventilating and air conditioning) and plumbing, of a building and construction work affects at least fifty percent (50%) of the building's floor area.*

b. (1) *Each capital project with an estimated construction cost of two million dollars (\$2,000,000) or more involving (i) the construction of a new building, (ii) an addition to an existing building, or (iii) the substantial reconstruction of an existing building shall be designed and constructed to comply with green building standards not less stringent than the standards prescribed for buildings designed in accordance with*

the LEED green building rating system to achieve a LEED silver or higher rating, or, with respect to buildings classified in occupancy groups G or H-2, to achieve a LEED certified or higher rating. If the mayor elects to utilize green building standards other than the LEED green building rating system, the mayor shall publish findings demonstrating that such other green building standards are not less stringent than the LEED standards described above for achievement of a LEED silver or, if applicable, a LEED certified rating. The green building standards utilized by the city in accordance with this section shall be reviewed and updated, as necessary, by the mayor no less often than once every three years.

(2) In addition, if the estimated construction cost of a project required to comply with green building standards in accordance with paragraph one of this subdivision is 12 million dollars (\$12,000,000) or more such project shall be designed and constructed to reduce energy cost as follows:

(i) Capital projects, other than buildings classified in occupancy group G, with an estimated construction cost of 12 million dollars (\$12,000,000) or more but less than 30 million dollars (\$30,000,000) shall be designed and constructed to reduce energy cost by a minimum of twenty percent (20%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty percent (20%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.

(ii) Capital projects, other than buildings classified in occupancy group G, with an estimated construction cost of 30 million dollars (\$30,000,000) or more shall be designed and constructed to reduce energy cost by a minimum of twenty-five percent (25%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty-five percent (25%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.

(iii) Capital projects involving buildings classified in occupancy group G with an estimated construction cost of 12 million dollars (\$12,000,000) or more shall be designed and constructed to reduce energy cost by a minimum of twenty percent (20%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent. In addition to such twenty percent (20%) reduction in energy cost, the design agency shall make investments in energy efficiency that reduce energy cost by an additional five percent (5%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years or, in the alternative, the design agency shall make investments in energy efficiency that reduce energy cost by an additional ten percent (10%) if it finds that the payback on such investment through savings in energy cost would not exceed seven years.

c. Capital projects, other than those required to comply with green building standards in accordance with subdivision b of this section, shall be subject to the following:

(1) Each capital project that includes the installation or replacement of a boiler at an estimated construction cost for such installation or replacement of two million dollars (\$2,000,000) or more, or that involves the installation or replacement of lighting systems

*in a building at an estimated construction cost for such installation or replacement of one million dollars (\$1,000,000) or more, shall be designed and constructed to reduce energy cost by a minimum of ten percent (10%), as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent.*

*(2) Each capital project, other than a project required to comply with paragraph one of this subdivision, that involves the installation or replacement of HVAC comfort controls at an estimated construction cost for such installation or replacement of two million dollars (\$2,000,000) or more, shall be designed and constructed to reduce energy cost by a minimum of five percent (5%) as determined by the methodology prescribed in LEED energy and atmosphere credit 1 or the New York state energy conservation code, whichever is more stringent.*

*d. In addition to complying with any other applicable subdivision in this section, each capital project involving the installation or replacement of plumbing systems that includes the installation or replacement of plumbing fixtures at an estimated construction cost for such installation or replacement of plumbing systems of five hundred thousand dollars (\$500,000) or more shall be designed and constructed to reduce potable water consumption in the aggregate by a minimum of thirty percent (30%), as determined by a methodology not less stringent than that prescribed in LEED water efficiency credit 3.2; provided, however, that such percentage shall be reduced to a minimum of 20% if the department of buildings rejects an application for the use of waterless urinals for the project.*

*e. This section shall apply only to capital projects involving buildings classified in occupancy groups B-1, B-2, C, E, F-1a, F-1b, F-3, F-4, G, H-1 and H-2.*

*f. The mayor may exempt from each provision of this section capital projects accounting for up to 20% of the capital dollars in each fiscal year subject to such provision if in his or her sole judgment such exemption is necessary in the public interest. At the conclusion of each fiscal year the mayor shall report to the council the exemptions granted pursuant to this section.*

*g. This section shall not apply to capital projects of entities that are not city agencies unless fifty percent (50%) or more of the estimated cost of such project is to be paid for out of the city treasury. This exemption shall not apply to any capital project that receives ten million dollars (\$10,000,000) or more out of the city treasury.*

*h. This section shall not apply to capital projects that have received capital dollars from the city treasury before January 1, 2007.*

*i. The mayor shall promulgate rules to carry out the provisions of this section.*

*j. The costs listed in subdivisions b, c, d and g of this section shall be indexed to inflation.*

*k. Capital projects accounting for at least fifty percent (50%) of the capital dollars in each fiscal year allocated for each city agency that are subject to paragraph one of subdivision b of this section that utilize a version of the LEED green building rating system for which the United States Green Building Council will accept applications for certification, shall apply to the United States Green Building Council for certification that such projects have achieved a silver or higher rating under the LEED green building rating system or, with respect to projects involving buildings classified in occupancy groups G or H-2, a certified or higher rating under such rating system.*

*§3. An annual report shall be prepared no later than September 1 of each year in accordance with the procedure and format established by the department of design and construction. Such report shall include, but shall not be limited to, a list and brief*

description, including square footage and total cost, of any capital project subject to section 224.1 of the charter, as added by section 2 of this local law, completed during the preceding calendar year; the estimated level of LEED certification such capital projects have achieved as determined by the design agency in accordance with the LEED rating system or, if applicable, the level achieved, as certified by the United States Green Building Council; additional costs attributable to complying with the LEED green building rating system or any other green building standard; an assessment of the health, environmental and energy-related benefits achieved in comparison with a base-case code compliant project (including projected energy savings and reductions in peak load, reductions in emissions, reductions in storm water runoff and potable water use); a summary of agency findings related to additional investment in energy efficiency pursuant to subparagraphs (i), (ii), and (iii) of paragraph two of subdivision b of section 224.1 of the charter, including any additional investment in energy efficiency considered and the estimated payback time for such investment through savings in energy cost; and the total value of capital allocations in each fiscal year, by city agency, of projects subject to, and exempted by the mayor for each of paragraph one and subparagraphs (i), (ii) and (iii) of paragraph two of subdivision b, paragraphs one and two of subdivision c and subdivision d of section 224.1 of the charter, as added by section 2 of this local law, as well as a list and brief description, by agency, of such exempted projects, including square footage and project cost. The first such report shall be completed on or prior to September 1, 2008.

§4. This local law shall take effect on January 1, 2007 and shall apply to capital projects for which the final design is approved pursuant to section 223 of the New York city charter after such effective date, except that prior to such effective date the mayor shall take all actions necessary for the timely implementation of this local law, including the promulgation of rules, and shall take all practicable steps to implement this local law. Section 3 of this local law shall expire and shall be of no further force and effect on and after January 1, 2019. Subdivision k of section 224.1 of the charter, as added by section 2 of this local law, shall expire and shall be of no further force and effect on and after January 1, 2017.

THE CITY OF NEW YORK, OFFICE OF THE CITY CLERK, s.s.:

I hereby certify that the foregoing is a true copy of a local law of the City of New York, passed by the Council on September 15, 2005, and approved by the Mayor on October 3, 2005.

VICTOR L. ROBLES, City Clerk of the Council

CERTIFICATION PURSUANT TO MUNICIPAL HOME RULE LAW §27

Pursuant to the provisions of Municipal Home Rule Law §27, I hereby certify that the enclosed Local Law (Local Law 86 of 2005, Council Int. No. 324-A) contains the correct text and:

Received the following vote at the meeting of the New York City Council on September 15, 2005: 46 for, 0 against, 0 not voting.

Was signed by the Mayor on October 3, 2005.

Was returned to the City Clerk on October 4, 2005.

JEFFREY D. FRIEDLANDER, Acting Corporation Counsel