

# **New York City's Green Buildings Act Becomes Law**

**By: Kenneth M. Block, Esq.\***

New York City Local Law 86, also known as the Green City Buildings Act (the "Act"), which Mayor Michael R. Bloomberg signed into law early last fall, will become effective on January 1, 2007.<sup>1</sup> The Act is significant in the construction industry,<sup>2</sup> because, among other things, it will require many of New York City's new municipal buildings, as well as additions and renovations to existing municipal buildings to achieve exacting standards of sustainability as "green buildings," a colloquial term used to describe buildings that are designed, constructed, and operated to improve environmental, economic, health, and productivity performance over that of conventional buildings.

## ***What are Green Buildings?***

Generally speaking, green buildings are facilities designed, constructed, managed, and disposed of using ecological principles to promote occupant health and resource efficiency, with particular attention being afforded to three main elements: a healthy indoor environment, maximum energy efficiency, and conservative, thoughtful use of natural resources.

Green buildings are perhaps best known for their resource efficiency, which practically speaking, equates to high levels of energy and water efficiency, appropriate use of land and landscaping, the use of environmentally friendly materials, and minimizing the life cycle effects of the building's design and operation. Green buildings, if properly designed and constructed, also offer occupants better indoor air quality ("IAQ") than their traditional counterparts, by seeking to improve air quality through the use of building materials with low toxicity and proper ventilation systems.<sup>3</sup>

In the residential sector, green buildings accounted for two percent of new construction in 2005 and are expected to account for between five and ten percent by 2010.<sup>4</sup> Green buildings currently represent approximately five percent of commercial buildings in the marketplace or more than \$3.3 billion in US real estate (435 million square feet of LEED Projects in 2005; doubled from 2004).<sup>5</sup> Although growth in both residential and commercial sectors is likely to be hindered by the perception that there is substantial additional cost associated with green construction,<sup>6</sup> significant energy cost savings are likely to make these energy efficient buildings more appealing on a life cycle rather than on a first cost basis.<sup>7</sup>

### ***“LEED” Ratings***

In 1998, the U.S. Green Building Council (“USGBC”) established the Leadership in Energy and Environmental Design (“LEED”) Green Building Rating System. The LEED rating system evaluates the location, design, construction, and operational aspects of newly constructed and renovated buildings, serving as a “voluntary national standard in which construction and renovation projects earn credits toward certification as sustainable buildings.”<sup>8</sup> According to the USGBC, the LEED Rating System was created to (1) define “green building” by establishing a common standard of measurement; (2) promote integrated, whole-building design practices; (3) recognize environmental leadership in the building industry; (4) stimulate green competition; (5) raise consumer awareness of green building benefits; and (6) transform the building market.<sup>9</sup>

The LEED rating system includes seven prerequisites and 69 elective points. There are four potential categories of certification. The LEED Certified level is awarded to buildings that earn between 26 and 32 elective points. LEED Silver is reserved for buildings that earn between 33 and 38 elective points. A LEED Gold rating is awarded to those buildings that earn between

39 and 51 elective points. Finally, a building that earns 52 or more elective points may be awarded the LEED Platinum classification.

### ***Adoption of the Act***

The New York City Council indicated that it chose to enact Local Law 86 for several reasons. First, the Council expects the Act will reduce New York City's electricity consumption, air pollution, and water use.<sup>10</sup> Second, it anticipates the Act will improve occupant health and worker productivity. Third, it believes the Act will encourage market transformation. Finally, it expects the Act will reduce the City's dependence on foreign oil as it will reduce overall energy demand for the city.

The Act has two general classes of requirements. The first set pertains to the minimum LEED Rating System classification certain buildings must achieve. The second set pertains to energy cost savings.

The Act provides that non-residential capital projects with estimated construction costs of \$2,000,000 or more must be designed and constructed to achieve an LEED Silver or higher rating. School (occupancy group G) and hospital (occupancy group H-2) projects, however, need only achieve an LEED Certified rating.

The Act also articulates requirements for energy cost reductions for certain projects. Capital projects, other than schools, with an estimated construction cost of more than \$12,000,000 but less than \$30,000,000 must be designed and constructed so as to reduce energy cost by a minimum of twenty percent. In addition to this reduction, a design agency must make investments in energy efficiency that reduce energy cost by an additional five percent if it determines the payback on this investment through savings in energy cost would not exceed seven years.

Capital projects, other than schools, with an estimated construction cost of more than \$30,000,000 must be designed and constructed so as to reduce energy cost by a minimum of twenty-five percent. Again, a design agency must make investments in energy efficiency that reduce energy cost by an additional five percent if it determines the payback on this investment through savings in energy cost would not exceed seven years.

Capital projects that involve schools with an estimated construction cost of \$12,000,000 or more must be designed and constructed to reduce energy cost by a minimum of twenty percent. Similarly, a design agency must make investments in energy efficiency that reduce energy cost by an additional five percent if it determines the payback on this investment through savings in energy cost would not exceed seven years. Alternatively, a design agency must make investments in energy efficiency that reduce energy cost by an additional ten percent if it determines the payback on this investment through savings in energy cost would not exceed seven years.

Capital projects that include the installation or replacement of a boiler at an estimated cost of \$2,000,000 or more must be designed to reduce energy cost by a minimum of ten percent. Similarly, capital projects that include the installation or replacement of lighting systems with an estimated cost of \$1,000,000 or more must also be designed to reduce energy cost by a minimum of ten percent.

Projects involving the installation or replacement of an Heating Ventilating and Air Conditioning (“HVAC”) system with an estimated cost of \$2,000,000 or more must be designed to reduce energy cost by a minimum of five percent. Finally, capital projects involving the installation or replacement of plumbing systems with an estimated cost of \$500,000 or more must be designed to reduce energy cost by a minimum of thirty percent.

The Act does not apply to the following occupancies: high hazard (A); industrial (D-1, D-2); stadiums (F-2); prisons (H-1); residential (J-1, J-2, J-3); and sheds (K). Further, the mayor may exempt projects accounting for up to twenty percent of the capital dollars in each fiscal year from the applicable provisions of the Act provided he or she determines such exemption is necessary in the public interest.

In addition, the Act is not applicable to the capital projects of entities that are not New York City agencies, unless fifty percent or more of the estimated cost of the project is paid from city funds. This exemption is inapplicable to capital projects that receive \$10,000,000 or more out of the city treasury.

### ***Other Jurisdictions***

As the preamble to the Act notes, other jurisdictions have enacted similar “green building” guidelines for municipal construction projects. Atlanta, for instance, passed legislation requiring design and project management teams for projects involving city facilities and buildings comprising over 5,000 gross square feet of occupied space or having a total project cost of more than \$2,000,000 to meet an LEED Silver rating.<sup>11</sup> Similarly, Seattle enacted a sustainable building policy calling for all new construction and major remodels of facilities and buildings with over 5,000 gross square feet of occupied space to achieve an LEED Silver rating.<sup>12</sup> Design and project management teams able to achieve a higher rating are honored with a Mayor’s Award.<sup>13</sup>

## ***Conclusion***

As the guidelines from New York and other jurisdictions demonstrate, municipalities are becoming increasingly concerned with the efficiency and environmental performance of their buildings.

Given the energy woes experienced by New York City and other major metropolitan areas, these ordinances may be a harbinger of legislation affecting privately-held and funded commercial buildings.

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<sup>1</sup> The Act is applicable to capital projects for which the final design is approved after the effective date.

<sup>2</sup> The Act has the potential to dramatically affect the New York construction industry because the building materials, as well as the building architectural design, the Act requires are in many cases substantially different than those used in traditional buildings. Inasmuch as the New York City Council anticipates it will have an effect on approximately \$12 billion in construction over New York City's ten-year capital plan, the Act's impact could be significant indeed. See New York City Local Law 86 of 2005, preamble, *available at* [http://www.nyc.gov/html/dob/downloads/pdf/ll\\_86of2005.pdf](http://www.nyc.gov/html/dob/downloads/pdf/ll_86of2005.pdf).

<sup>3</sup> For a study of IAQ in green buildings see W. Stuart Dols et al., *Indoor Air Quality in Green Buildings: A Review and a Case Study*, in PATHS TO BETTER BUILDING ENVIRONMENTS 139 (Kevin Y. Teichman ed., 1996), *available at* <http://www.fire.nist.gov/bfrlpubs/build96/PDF/b96017.pdf>.

<sup>4</sup> See Green Goes Mainstream, *available at* [http://money.cnn.com/2006/04/14/real\\_estate/green\\_in\\_mainstream/index.htm](http://money.cnn.com/2006/04/14/real_estate/green_in_mainstream/index.htm).

<sup>5</sup> University of Wisconsin Cooperative Extension, Solid & Hazardous Waste Education Center May 2006, *available at* <http://www3.uwm.edu/Dept/shwec/publications/newsletters/May2006.cfm>.

<sup>6</sup> Some estimates of the additional cost of constructing a green house run as high as ten percent. See Green Building Goes Big, *available at* [http://money.cnn.com/2006/05/31/real\\_estate/green\\_goes\\_large\\_scale/index.htm](http://money.cnn.com/2006/05/31/real_estate/green_goes_large_scale/index.htm). The Act, however, cites a California study that found a cost premium of less than two percent on green buildings.

<sup>7</sup> On average, green buildings are 28% more energy efficient than conventional buildings. Gregory H. Kats, Green Building Costs and Financial Benefits at 4, *available at* <http://www.cap-e.com/ewebeditpro/items/O59F3481.pdf>. The total financial benefits of a green building is in excess of ten times the average initial investment necessary to design and construct it. *Id.* at 8.

<sup>8</sup> What is LEED?, *available at* [http://www.greenerbuildings.com/leed\\_definition.cfm](http://www.greenerbuildings.com/leed_definition.cfm).

<sup>9</sup> LEED: Leadership in Energy and Environmental Design, *available at* <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>.

<sup>10</sup> The Council's financial analysis indicates that the savings associated with decreases in energy and water costs alone will offset debt service payments on any increase in capital expenditures resulting from this legislation.

<sup>11</sup> See Atlanta Sustainable Development Ordinance, *available at* [http://www.atlantaga.gov/client\\_resources/forms/energy%20conservation/adopted%20ordinance.pdf](http://www.atlantaga.gov/client_resources/forms/energy%20conservation/adopted%20ordinance.pdf).

<sup>12</sup> See Seattle Sustainable Building Policy, *available at*: <http://www.seattle.gov/sustainablebuilding/SBpolicy.htm>.

<sup>13</sup> See *id.*