

# Model Green Building Ordinance Proposed for Adoption by New York Municipalities

By Michael B. Gerrard and Jason James

After failing to pass in the 111th Congress, comprehensive federal climate legislation appears stalled until at least 2013. Regulation of greenhouse gas emissions under existing federal law, while progressing, has encountered challenges. Even state initiatives, such as California's A.B. 32, lie on less than certain ground. But not all action to reduce greenhouse gas emissions must be taken on the federal or state level. Through regulating buildings, municipalities can play a crucial role in reducing greenhouse gas emissions while improving the health and welfare of their local communities.

In 2009, the residential and commercial building sector was responsible for more than 50 percent of total annual U.S. energy consumption,<sup>1</sup> 74 percent of total U.S. electricity consumption,<sup>2</sup> and 39 percent of total U.S. greenhouse gas emissions.<sup>3</sup> While state energy codes require a minimal level of efficiency, municipalities in New York and other states can enact stronger regulations and thereby reduce this substantial source of emissions.

We propose that one of the most effective ways a municipality can act to reduce these emissions is to enact a green building ordinance that mandates not only energy efficient buildings, but a full spectrum of carbon-cutting practices. Green buildings also use water more efficiently, are built from reused and sustainable materials, and reduce the negative environmental impact of buildings in several other ways.

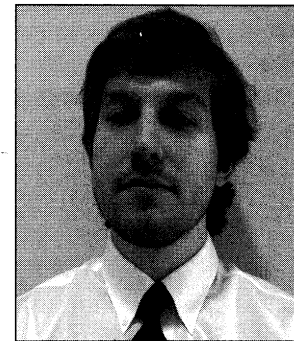
Municipal ordinances requiring green building practices have proliferated around the country over the last several years. These ordinances vary widely in their design, content and coverage, and in the quality of their drafting. This patchwork of laws complicates the work of architects, engineers and lawyers who must try to conform their clients' projects to local requirements. Many opportunities are lost to improve the energy and water efficiency of buildings.

In an effort to address these problems, Columbia Law School's Center for Climate Change Law (CCCL) has undertaken an effort to draft a model municipal ordinance on green buildings. The first step was to



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compile as many such existing ordinances and policies as possible; we found 163 of them, and have posted them on our web site.<sup>4</sup> We then analyzed them to find their best features and create a model ordinance. We posted a draft version of this model, together with detailed commentaries on its features, the rationale behind the choices it embodies, the associated legal issues, and various optional add-ons in June 2010.<sup>5</sup>



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We are now releasing a revised version of the ordinance incorporating comments we received on the draft ordinance. The model and commentary are primarily the work of lawyers at CCCL and Arnold & Porter, with several outside reviewers providing comments, including the Center for Code Reform, U.S. Green Building Council (USGBC), and the City of New York's Mayor's Office of Environmental Coordination. (We adopted most but not all of the recommendations of the reviewers.) It is our hope that municipalities will consider adoption of this ordinance. The law is designed for New York state municipalities, but with minor revisions it can be adopted for use in other states.

## Design of Ordinance

Some large municipalities have adopted their own detailed green building codes with extensive technical specifications, many of them tailored to high-rise buildings. Others, such as the City of New York, have very detailed energy codes. Most small municipalities are not able to write a green building standard from scratch, so use of a third-party standard in the model ordinance was essential. The International Code Council has proposed one such third-party standard, an International Green Construction Code, a 193-page document of technical specifications.<sup>6</sup> However, we concluded that considering and adopting this level of specification was also beyond the capabilities of most smaller municipalities.

Instead, we have looked to what has emerged as the nation's leading system of green building standards, the Leadership in Energy and Environmental Design (LEED) rating system of the non-profit USGBC. LEED is a performance-based system and not a prescriptive standard; different building or site features,

such as high energy efficiency or a green roof, entitle a project to LEED points. If enough LEED points are accumulated, the building may receive a certain level of LEED certification. This level of certification may increase from the plain vanilla (certified) to, progressively, silver, gold and platinum. The LEED system is being updated on an ongoing basis, and new versions are also appearing to reflect different kinds of projects—e.g., new construction and major renovations, health care facilities, schools and others.

Under the CCCL model ordinance, most commercial and high-rise residential buildings are covered by the LEED-NC 3.0 standard, the latest LEED standard for new construction and major renovations. Schools, however, are covered by the LEED for Schools standard. Covered buildings must meet the silver level, which is the level most often adopted by the existing green building ordinances that we found. To meet the silver level, buildings must attain half of all possible LEED points. Since many factors other than energy efficiency provide for LEED points, the model ordinance has the option of also requiring a certain minimum number of points from among those specifically pertinent to energy, obviating the concern that builders may accumulate the needed points without sufficient attention to energy savings.

Because green building standards are steadily progressing, even a very strong ordinance enacted today could seem lax five years from now. The model ordinance provides that a municipality may take administrative action (without requiring a new vote by its city council or other governing body) to move to an updated or entirely different standard, provided that standard meets certain criteria specified in the ordinance. For those municipalities that are uncomfortable allowing an administrative official to adopt a different standard, the model ordinance provides an option specifying that the municipality's governing body adopts these changes. We rejected the idea (adopted in some places) of automatically adopting revised standards as they are released by the USGBC; that would raise concern about improper delegation of governmental authority to non-governmental entities.

Official certification of green buildings via USGBC procedures has sometimes led to long delays and also raises a delegation problem if required by the law. Thus, the model ordinance declined to require USGBC certification. Instead, in order to obtain a building permit, the application must demonstrate that the building is designed to achieve the 50 LEED points required for silver level certification. In other words, the building does not have to be certified by the USGBC but must only merit the number of points required to achieve LEED silver in the judgment of the designated municipal official.

Once completed, the building would receive a certificate of occupancy only when it was determined to have achieved these points. If during construction it turns out that certain points cannot be achieved as planned, leaving the building short of the number of points required for LEED silver, a temporary certificate of occupancy may be available until either those points are achieved or satisfactory mitigation measures are taken. The ordinance provides an option requiring the temporary certificates of occupancy to be made public, intending to hasten mitigation measures. Some existing ordinances provide that a building permit cannot be issued unless the building has been LEED certified by USGBC, but that does not work—USGBC certification is not available until after construction is complete.

This LEED silver requirement would apply to new construction of municipal buildings, most commercial buildings, and high-rise multifamily residential buildings, provided the buildings have at least 5,000 square feet of conditioned space. The ordinance would not cover large buildings that do not consume much energy, such as parking garages. It would also apply to major modifications of such buildings (defined as rehabilitation work in at least two major building systems; construction work affecting at least half the building's floor area; or construction increasing the square footage by at least half). The ordinance covers instances where a builder simultaneously applies for multiple minor renovation permits in an attempt to evade the regulation, narrowing a potential loophole.

LEED is not well suited for smaller buildings. Thus, for new construction of one- and two-family dwellings, and low-rise multifamily residential buildings, the model ordinance instead requires an adequate rating under the Energy Star Homes Rating System, a set of guidelines for energy efficiency developed by the U.S. Environmental Protection Agency and the U.S. Department of Energy. This rating system does not encompass as many green building features as LEED. However, its successful use in other jurisdictions makes it a strong initial choice, and it can easily be updated if a more multifaceted green homes standard emerges. We have not required that single family homes undergoing renovation abide by the ordinance out of concern that this could unduly raise the cost of many kitchen and bathroom renovations.

## Implementation

Determinations of compliance with the LEED standards, Energy Star ratings, and other requirements would be made by a Green Building Compliance Official, a municipally designated official; it will often but not always be the building inspector. This official is empowered to conduct inspections, issue stop work orders, and take other enforcement actions. Smaller

towns and villages may not be able to support an inspector with sufficient training to make these determinations; the model ordinance is accompanied by a model inter-municipal agreement that would allow several municipalities to pool their resources in hiring inspectors.

Applicants may apply for a partial exemption from the requirements based on hardship or infeasibility. Some of the factors that could lead to such an exemption include unavailability of the necessary green building materials or technologies, or incompatibility of green building requirements with other governmental rules. Even applicants that receive a partial exemption must include as many green building features as feasible. Optional provisions would allow municipalities to exempt some historic buildings, or buildings where the added cost of complying with the green building standard would exceed a set percentage.

Appeals from determinations of the Green Building Compliance Official may be made to an appellate body designated by the municipality (typically the board of zoning appeals).

## Options

In recognition that an efficiently built building can be operated inefficiently, the green building laws of New York City and Washington, D.C. provide for benchmarking—a process under which a building's energy and water usage is compared to that of comparable buildings. The model ordinance includes benchmarking as an optional provision. Public disclosure of benchmarking information is intended to encourage more efficient operation of buildings.

Another option aimed at post-construction efficiency applies to buildings owned or mostly occupied or funded by a municipality. It would require existing buildings in these categories to meet the LEED standards for operations and maintenance of existing buildings (called LEED EB:OM); municipalities may widen the applicability of these operations and maintenance standards if they wish.

## Legal Issues

A number of potential legal issues have been raised in connection with municipal green building ordinances. We have attempted to draft an ordinance that would have none of the identified vulnerabilities. We have posted a working paper analyzing each of these issues.<sup>7</sup> These are the principal items:

**Federal preemption.** The federal Energy Policy and Conservation Act<sup>8</sup> preempts state and local regulation of appliances that are covered by federal efficiency standards. The model ordinance does not man-

date any appliance standards. Certain LEED points could be gained by use of especially efficient appliances, but the selection of which LEED points to seek, and how to obtain them, is left up to the applicant.

**State preemption.** The New York State Energy Conservation Construction Code<sup>9</sup> establishes energy efficiency standards to be enforced by municipalities, but it explicitly allows municipalities to adopt more stringent requirements.<sup>10</sup> The New York State Uniform Fire Prevention and Building Code<sup>11</sup> does generally preempt inconsistent provisions on such subjects as fire safety, fuel gas, and plumbing. Again, certain LEED points might be gained by devices that go beyond what is required by the Fire Prevention and Building Code, but the ordinance does not require selection of these devices. The model ordinance provides procedural options if any actual inconsistencies are found between the LEED or Energy Star requirements, on the one hand, and the preemptive federal or state codes, on the other hand. Should serious questions arise in this regard, the New York State Code Council has the power to grant waivers from the state codes.

**Non-delegation.** Local legislative bodies may not relinquish legislative functions to private individuals, associations or corporations.<sup>12</sup> The model ordinance does not do so; it adopts certain standards from the USGBC and the Energy Star program, but the municipality retains control over revisions to and enforcement of these standards.

**Incorporation by reference.** The New York State Constitution bars incorporation by reference of outside laws.<sup>13</sup> However, the courts have interpreted this to apply only to incorporation of actual laws, and not of standards created by third party organizations.<sup>14</sup> This issue arose when New York City adopted an ordinance regulating bats used in high school baseball games, incorporating by reference the bat rules of Major League Baseball. The U.S. District Court found this to be permissible.<sup>15</sup>

**Antitrust.** One of the LEED credits requires use of wood that has been certified by the Forest Stewardship Council, which could disadvantage non-certified wood producers. The model ordinance also provides that Energy Star ratings must be assessed by people with certain qualifications, disadvantaging persons without those qualifications. Aside from the reasonableness and noncompetitive purposes of these requirements, municipalities that are advancing state policies have important immunities from the antitrust laws.<sup>16</sup>

## Comments Sought

We are continuing to accept comments on the ordinance. Please submit them to [michael.gerrard@law.columbia.edu](mailto:michael.gerrard@law.columbia.edu). While continuing to update the green

building ordinance to reflect changes in the field, we are also working on model ordinances on the siting of renewable energy facilities such as wind and solar installations.

## Endnotes

1. U.S. Energy Information Administration, *Annual Energy Outlook 2009 Early Release: Tables 2, 4, 5, and 18* (Dec. 2008), available at [http://www.eia.doe.gov/oiaf/aeo/aeoref\\_tab.html](http://www.eia.doe.gov/oiaf/aeo/aeoref_tab.html). This number consists of 42% building operations (residential, commercial, and industrial building HVAC, hot water and plug load), 8% building construction and the embodied energy of building materials.
2. U.S. Dept. of Energy, *2009 Buildings Energy Databook*, Table 1.1.1., available at <http://buildingsdatabook.eren.doe.gov/TableView.aspx?table=1.1.1>.
3. *Id.*, Table 1.4.1, available at [http://buildingsdatabook.eren.doe.gov/docs/xls\\_pdf/1.4.1.pdf](http://buildingsdatabook.eren.doe.gov/docs/xls_pdf/1.4.1.pdf).
4. <http://www.law.columbia.edu/centers/climatechange/resources/municipal>.
5. *Id.*
6. <http://www.iccsafe.org/igcc>.
7. The working paper is available at <http://www.law.columbia.edu/centers/climatechange/resources/municipal>.
8. 42 USC §§ 6021 et seq.
9. NY Energy L. §§ 11-101 - 11-110.
10. NY Energy L. § 11-109(1).
11. NY Exec. L. §§ 370-383 (further parts of code available in NYCRR).
12. *People v. Mobil Oil Corp.*, 422 NYS2d 589, 591 (Dist. Ct. Nassau Co. 1979).
13. NY Const., art. III, § 16.
14. *People v. Halpern*, 361 NYS2d 578 (City Ct., City of Long Beach 1974).
15. *USA Baseball v. City of New York*, 509 F.Supp.2d 285, 299 (SDNY 2007).
16. *City of Columbia v. Omni Outdoor Adver. Inc.*, 499 US 365, 370 (1991); see also *Elec. Inspectors, Inc. v. Village of East Hills*, 320 F.3d 110 (2d Cir. 2003).

Michael B. Gerrard is Andrew Sabin Professor of Professional Practice and Director of the Center for Climate Change Law at Columbia Law School, and Senior Counsel to Arnold & Porter LLP. The American Bar Association has just published his latest book, *The Law of Green Buildings* (co-edited with J. Cullen Howe). Jason James is a Post-Doctoral Research Fellow at the Center.

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