
Zoning and Land Use Planning

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Energy Codes, Green Building Initiatives, and Beyond

Recent federal actions, including both the stimulus act and the pending Waxman-Markey climate bill have altered the current state of energy regulations—requiring rigorous updates to state and local building energy efficiency codes. With the majority of states amending their energy codes and working to achieve compliance with these updates, attorneys that represent municipalities and developers will experience significant changes in their practice. These changes will necessitate an understand-

ing of the development of energy codes, the organizations behind them, and the actions taken by state and local governments to strengthen energy requirements even further.

Also at the forefront of the move to green the built environment is the recent surge of interest, action, and controversy surrounding the adoption of green building standards at the local level. Green building laws go beyond energy conservation and impose other requirements regarding the sustainability of sites, water efficiency, renewable energy, air pollution, and indoor environmental quality—to name a few. As local legislatures, planning boards, affected developers, citizens groups, and their attorneys probe the extent of this authority and the many methods of exercising it, numerous questions arise about how to take advantage of the opportunity to advance green development without causing unintended negative consequences.

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This article explains regulations and programs currently underway at the federal, state, and local levels, as well as within the private sector, that impact how communities—and the attorneys who work with them—implement energy conservation, sustainable development, and climate change initiatives. The first portion of this article focuses on energy efficiency standards, and the second expands to address green building standards and requirements.

Federal Initiatives to Reduce Energy Use in Buildings

Under current law, the adoption of energy efficiency codes is a voluntary prerogative of state governments; and in some states the adoption of energy codes is a choice left to local governments. Many states that adopt state-level energy codes also grant local governments the authority to create enhanced energy codes—going beyond what is required at the state level. Passage of the Waxman-Markey bill, however, may change all of this and would require vertical integration of national energy efficiency standards.

On June 26, 2009, the U.S. House of Representatives passed the Waxman-Markey bill, officially known as the American Clean Energy and Security Act of 2009 (ACESA).¹ Best known for its greenhouse gas cap-and-trade provisions, ACESA aims to achieve a significant reduction in greenhouse gas emissions by the year 2050, with incremental reduction targets set along the way. If adopted by the Senate, Title II of the Act, which addresses energy efficiency, would amend the Energy Conservation and Production Act² to create a mandatory national energy code for residential and commercial buildings. Along with incentives for energy efficient homes and buildings, ACESA offers specific building energy savings targets, which operate from baseline codes. With the 2006 International Energy Conservation Code (IECC) as the baseline for residential buildings and the 2004 American Society of Heating, Refrigerating, and Air Conditioning Engineers standard 90.1 (ASHRAE 90.1-2004) as the baseline for commercial buildings,³ ACESA charges the U.S. Secretary of Energy with the task of adopting a national code that can achieve the speci-

fied targets. Notably, the legislation includes a requirement for states to review and update their energy codes to meet or exceed the targets set in the national energy efficiency building code within one year after the national code is established. In states where local governments are responsible for building codes, the state must document that localities representing at least 80% of its urban population have adopted codes that comply with the national targets. Within two years, a state must then verify compliance with its updated energy code. As set forth in the legislation, compliance means that at least 90% of new and substantially renovated building space within the state meets code requirements. Noncompliant states will face federal enforcement of the national code within their local jurisdictions, inspection fees, ineligibility to receive valuable emissions allowances, and escalating penalties, including reduced direct funding.

But why, with ACESA not likely to come before the Senate until early this fall, have states across the country already been rushing to update and enhance their energy codes to address building energy use

and curb resulting CO₂ emissions?⁴ Buildings, which are responsible for 70% of total U.S. electricity consumption, have received some much-needed attention under the American Recovery and Reinvestment Act (also known as ARRA or the economic stimulus act). ARRA's State Energy Program (SEP) provision makes over three billion dollars in stimulus money available. Updating and strengthening the state-level energy code is a precondition to obtaining a state's share of this funding.

Under the SEP, states must assure the U.S. Secretary of Energy that they will adopt the new 2009 IECC or its equivalent for residential buildings and the 2007 version of ASHRAE 90.1 or its equivalent for commercial buildings. In addition, the state must implement a plan to achieve compliance with these strengthened codes in at least 90% of new and renovated buildings within eight years. In accordance with ARRA, the compliance plan must include active training and enforcement programs, and states must prioritize the grants toward funding energy efficiency and renewable energy programs. To date, the Department of Energy (DOE) has ap-

proved energy plans for over half of U.S. states.⁵

The Basics of Energy Codes

The IECC and ASHRAE Standard 90.1 both apply to the energy efficiency of new construction, additions, and renovations. They take a similar approach to efficiency requirements and construction practice and are the two most commonly used national model energy codes in the U.S.⁶ The majority of U.S. states have adopted the IECC, which allows ASHRAE 90.1 as a compliance path for large residential and commercial buildings.⁷ The IECC contains a set of commercial building requirements and incorporates by reference Standard 90.1, which gives IECC users flexibility.⁸

What is the IECC?

Developed by the International Code Council (ICC)—a non-profit organization whose mission is to develop a single set of comprehensive and coordinated model construction codes⁹—the IECC regulates the design and construction of residential and commercial buildings, with a focus on effective energy use. The IECC is updated every three years and is

separated into two categories: residential buildings, which include one- and two-family homes and multifamily buildings of three or fewer stories, and commercial buildings, which include four or more story multifamily residential.

The new 2009 IECC requires approximately a 15% increase in energy efficiency from the previous 2006 version. Because the IECC is often used as a reference standard for energy efficiency programs, these other programs that are based on being a certain percentage above the code will all have to be enhanced as the energy code improves, moving closer and closer to zero-energy.

What is ASHRAE 90.1?

ASHRAE, founded in 1894, is an international member organization whose mission is to advance heating, ventilation, air conditioning, and refrigeration efficiency to serve humanity and promote a sustainable world. ASHRAE has been a force in energy standards for commercial buildings since 1975, beginning with its Standard 90.

ASHRAE Standard 90.1, updated every 3 years, is used

globally as a reference standard for building codes. It provides minimum energy efficiency requirements for commercial and high-rise residential buildings, excluding low-rise residential buildings and envelope modifications of historic buildings.

Code Enhancement Tools

There are a number of programs available to create buildings that are more energy efficient than national building codes and standards—most achieving at least 15% greater efficiency than the IECC. When adopted, these are often referred to as “stretch” or “reach” codes and are typically made available as an option for municipal implementation. A state or locality might choose to go beyond the baseline state requirements for a number of reasons, not the least of which is that implementing efficiency measures at the time of new construction is significantly more cost-effective than upgrades to existing buildings.¹⁰ This allows a community to increase the overall energy efficiency of its built environment over time without having to resort to overly-burdensome retrofit requirements. In addition to the poten-

tial applicability to stretch codes, these programs may also influence the national energy efficiency building code proposed under ACESA. The version of the Act approved by the House instructs the U.S. Secretary of Energy while developing the national code to consider data and information from the New Buildings Institute (NBI), standards published or proposed by ASHRAE, data and information from the ENERGY STAR New Homes and ENERGY STAR for Buildings programs, and building codes published or proposed by the ICC¹¹—all discussed below.

a. Core Performance

The first of these code enhancement tools is the Core Performance program developed by NBI—one of the sources for data and information referenced in ACESA. The State of Massachusetts, as an example, recently adopted a stretch code that references NBI’s Core Performance program as an option for local implementation.¹² Core Performance is a prescriptive approach that can yield almost 30% energy savings above the IECC for commercial buildings smaller than 100,000 square feet. The pro-

gram enables jurisdictions to select from the Core Performance list or adopt the entire program.

b. ASHRAE Standard 189

ASHRAE, in conjunction with the United States Green Building Council (USGBC) and the Illuminating Engineering Society of North America (IESNA), developed Standard 189—similar in structure to LEED, described below—for the design and construction of high-performance green buildings. The intent behind its creation is for both public and private entities to use Standard 189 as a performance baseline. The Standard, which does not apply to low-rise residential buildings, is designed to achieve 30% greater energy efficiency than ASHRAE 90.1-2007—ARRA’s reference standard for commercial buildings.

c. ENERGY STAR

ENERGY STAR is perhaps the most well-known energy efficiency program in the country. Started in 1992 as a joint effort between DOE and the U.S. Environmental Protection Agency (EPA), ENERGY STAR was created as a voluntary labeling

program for energy-efficient products. The program eventually grew to include standards for residential and commercial buildings as well as manufacturing plants.

ENERGY STAR provides several methods of making a home more energy efficient than most state energy code requirements. These methods include more effective insulation, higher performance windows, more efficient heating and cooling equipment, tighter building envelopes to reduce air infiltration, and use of various energy efficiency products. The Home Energy Rating System (HERS) Index is used as the reference tool for ENERGY STAR-labeled residential buildings. The index uses a scale from zero to 150, with zero being a zero-energy building. The standard building constructed today in the U.S. typically falls around 100 on the HERS Index. To receive an ENERGY STAR label, a home must achieve a minimum HERS rating that varies by climate zone, with 80 required in some zones and 85 required in others.

Like many other standards and rating systems, ENERGY STAR guidelines for residential buildings may be adopted at the local level as either man-

datory or incentivized standards for new or renovated buildings. Setting an incentive-based example, the Town of Blooming Grove, NY, allows developers to construct additional dwelling units in exchange for achieving above-code energy efficiency. Specifically, the zoning ordinance permits a 10% increase in base lot count for adhering to the NY ENERGY STAR guidelines, low impact development guidelines, or LEED standards.¹³ This is a method of using local zoning authority to enhance building energy efficiency in excess of the state energy code standards.

Similarly, Seattle, WA, promotes green residential development through the use of ENERGY STAR and other external enhancement tools like LEED. Rather than mandating compliance, Seattle promotes use of these standards by providing homeowners with information and links to each of these programs on its Climate Action Now website—a central clearinghouse for information and activities related to climate change mitigation.¹⁴ The City also promotes ENERGY STAR with its City Green Building Program, through which the Department of Plan-

ning and Development provides assistance to homeowners and builders looking to use green building technology for construction and remodeling projects.

Setting an example for the private sector, Denver, CO, requires ENERGY STAR compliance for its own public buildings. Under Executive Order 123, city-funded new buildings and major renovations must be built in compliance with ENERGY STAR and must achieve a minimum Silver rating under the LEED for New Construction and Major Renovations rating system.¹⁵ Similarly, in the County of Arlington, VA, county buildings must be built and designed to meet ENERGY STAR performance targets or comparable targets where ENERGY STAR benchmarking has not been established.¹⁶ Under its recently-created “Fresh AIRE” program (standing for Arlington Initiative to Reduce Emissions), the County’s list of strategies include, among other things, partnering with the ENERGY STAR program and similar resources to help businesses reduce energy use and emissions and offering five free energy audits for small businesses.¹⁷

Mandating ENERGY STAR compliance for the private sector, the Town of Red Hook, NY, recently passed legislation requiring that newly-constructed one- and two-family homes and multifamily buildings of three or fewer stories comply with the NY ENERGY STAR standards in addition to those of New York State's Energy Conservation and Construction Code.¹⁸ In addition, thanks to incentives provided by Long Island Power Authority, over a dozen communities in Long Island require ENERGY STAR labels in their building codes. Likewise, the Town of Greenburgh, NY, amended its local code to add new energy conservation requirements more restrictive than the adopted statewide mandatory energy code.¹⁹ Greenburgh's local law requires that all new homes constructed in the Town comply with the New York State "ENERGY STAR-Labeled Homes" requirement. Both the Red Hook and Greenburgh approaches are strategic in their application to only one and two-family dwellings and multi-family buildings of three stories or less—the same buildings covered by the residential provisions of the state code.

d. LEED and ICC-700

In the last several years there has been a growing trend toward local adoption of comprehensive green building legislation (discussed in more detail in the next section of this article). Many of these communities have turned to the LEED green building rating systems. LEED was developed by the USGBC almost a decade ago to encourage developers to adopt sustainable green building and development practices through the implementation of widely accepted tools and performance criteria. LEED promotes a range of sustainability objectives—including a higher level of energy efficiency than the IECC—by awarding points toward certification for performance in a number of key areas, including: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, and Indoor Environmental Quality. LEED projects are designed to earn points toward four levels of certification (Certified, Silver, Gold, and Platinum), which is ultimately granted or denied by the Green Building Certification Institute (GBCI)—the entity responsible for administering the LEED certification process.

Another green building program for local governments to consider is the ICC-700, developed by the ICC in partnership with the National Association of Home Builders (NAHB). ICC-700 is a building standard for residential construction that addresses the efficiency of energy, water, and other resources. Like LEED, the ICC-700 uses a four-tiered ranking system: Bronze, Silver, Gold, and Emerald.

The LEED and ICC-700 standards may be used by state or municipal governments as the basis for more rigorous code requirements. The State of Michigan, for example, has a bill pending that would grant municipalities adoption and enforcement authority for green building standards, including both LEED and ICC-700.²⁰

Green Building Initiatives

Green building standards go beyond energy conservation and prioritize a more comprehensive framework of sustainability objectives, focusing on concerns like water degradation and scarcity, natural resource preservation, air quality, and human health and well-being. Despite the success of

green building laws in localities across the country, there are still many potential pitfalls that must be taken into account by governments, attorneys, developers, and concerned citizens interested in advancing green development while avoiding unintended consequences. This section presents an overview of these potential consequences and provides examples of what local governments are doing to avoid them.

Project Approval Conditions & Mandatory LEED Compliance

At a recent planning board meeting in the Village of Mount Kisco, NY, a developer reported that its 129-unit residential project would be constructed and operated to qualify for LEED certification at the Silver level. A member of the board questioned whether the Village could guarantee that result by making LEED certification a condition of the approval of the project. Consultants for the Village pointed out that while imposing such a condition under the State Environmental Quality Review Act²¹ might be legal, it would not be wise to do so for reasons explained below.

Under the LEED green building rating systems, projects may submit for certification at the completion of construction, which requires verification that the building is built according to relevant LEED standards. The certification review process can be lengthy, taking months to work through the preliminary review, final review, and acceptance or appeal phases. Meeting local requirements, buildings must receive a Certificate of Occupancy (CO) following construction from the local building official or department before they may be occupied and operated. This creates a worrisome Catch-22 situation in localities requiring LEED certification: How can a CO be granted if a condition of approval (the awarding of LEED certification) has not been met? If a Temporary CO is granted, pending certification, what happens if certification is not obtained? Perhaps the developer anticipated that the building would receive a point under a credit requirement that it did not meet. The granting or denial of LEED certification could be a matter of one point. To develop a building in a community where certification is mandatory without exception is to risk never being

eligible for a CO if certification is not achieved.

Other legal issues are raised when a municipality imposes green building standards on private development. In the Mount Kisco illustration, for example, what impact would such a condition have on the eligibility of a project for construction lending? Will residential purchasers be willing to commit down payments to purchase without knowing whether a permanent CO will be obtained or whether the promised benefits of LEED certification will be realized? If a building that is legally required to meet LEED standards fails to do so, are the professional consultants and contractors liable to the developer or are any of them liable to the purchasers for misrepresentation or negligence—even negligence per se? Do those purchasers have any action against the municipality for failure to ensure compliance with requirements contained in its legal regime? Can the municipality incorporate the standards of an independent third party, such as the USGBC, particularly future changes in those standards, without violating illegal delegation rules or anti-trust prescriptions?²² If a local govern-

ment decides to include standards regarding the energy use of building equipment, or even appliances, is it preempted by federal or state law from doing so?²³

In 2006, the Town of Babylon, NY, adopted a law requiring all newly constructed commercial buildings, office buildings, industrial buildings, multiple residences, and some senior citizen residences to obtain LEED certification.²⁴ The law specifies that Babylon adopts the LEED for New Construction and Major Renovations (LEED-NC) Version 2.2 standards and “further automatically adopts any future versions promulgated by the U.S. Green Building Council.” Some worry that this reliance on third party standard-setting in the future violates the non-delegation doctrine, applicable to legislative bodies. In addition to the complications of coordinating certification with the issuance of a CO, the imposition of LEED standards raises additional concerns. Certification is expensive to obtain; it takes time; and LEED is undergoing constant review and alteration, which can complicate local enforcement and compliance and befuddle the professionals involved in the private

sector. Standard 189.1, discussed above, was developed in response to these complications as a national green building code created specifically for adoption by states and municipalities. This new standard, however, will apply only to commercial and high rise residential buildings.

The Babylon law deals with the CO and LEED certification difficulties in two ways. First, it allows a “temporary Certificate of Occupancy . . . until proof of Certification is achieved.” Second, it requires that developers pay a fee to ensure certification and then refunds the fee when certification is secured. Other local governments require that the developer post a performance bond as a certification performance guarantee. These techniques still, however, do not address the issues presented if certification is denied.

The City of Seattle, WA, has also developed a technique for instances when certification at the required level is not achieved. In developing its green building program, the City worked closely with its development community to identify and avoid unintended consequences. To prevent the creation of barriers to obtain-

ing bank financing, developers requested that the City adopt a penalty-based system for failure to meet certain obligations assumed in exchange for height and density bonuses.

Through updated zoning legislation,²⁵ the City created an incentive-based density bonus system.²⁶ To receive increased height or density, a developer must commit to achieve LEED certification at the Silver level in either the LEED for New Construction and Major Renovations²⁷ or LEED for Core & Shell²⁸ rating systems. Specifically, a developer must complete two steps to receive the Density Bonus. First, the developer must submit a letter of intent to achieve a LEED Silver, Gold, or Platinum project rating before issuance of the Master Use Permit. The City will then issue subsequent permits and the final CO based on this good faith commitment. Second, within 90 days of receiving the final CO, the applicant must submit documentation from the USGBC demonstrating LEED certification at the Silver level or higher (with penalties built in for failure to submit a timely report and extensions given for good cause).²⁹ Failure to achieve Silver certification results in a

penalty calculated using a specific formula, which essentially bases the amount of the penalty on the number of additional LEED points the project would have needed to achieve a Silver rating. All penalties collected are given to the city's Green Building Fund, which is dedicated to supporting market adoption of green buildings. This penalty-based system responded to banks' concerns about financing building projects with legal impediments to a CO.

Because of the issues described, many communities are taking a cautious approach to green building development, such as the City of Boston's Zoning Code Green Building Amendments in 2007.³⁰ The Boston legislation incorporates by reference the LEED green building rating systems and requires affected buildings to be LEED "Certifiable"—meaning, a developer is required to design and construct a building to meet LEED certification requirements but is not required to apply for actual certification from the USGBC (or, more recently, GBCI, which is newly responsible for administering the LEED certification process).³¹ Compliance with the local law is required, but

developers are allowed to choose voluntarily which LEED standards to meet and to demonstrate to the city that the building is able to achieve certification, rather than to submit evidence of actual certification prior to the issuance of the CO.

Without certification by the USGBC (or GBCI) as a form of compliance verification, there are several verification methods available, even in smaller cities without significant funds or staff capacity. One method is to conduct random but detailed audits of selected buildings—the IRS tax audit approach—which is being considered by the Cambridge, MA. Under this approach, the municipality would select limited staff to perform cursory reviews of all applicable projects and then occasionally hire an auditor to perform an extensive audit of a randomly selected project. Another method is to use LEED standards as performance objectives or review protocols and encourage, but not require, developers to come as close as possible to meeting those standards, allowing waivers for cause. For any enforcement approach selected, the municipality can also require—as many already do—a number of submittals

both prior to the start of construction and post-construction that indicate the LEED standards achieved by the project, the total number of points that would be earned toward certification, and verification by a licensed professional (usually the architect or engineer) or a LEED Accredited Professional that the project does in fact meet the indicated standards. These approaches get developers into the process of LEED compliance and may motivate them to secure certification on their own for marketing purposes, increased return-on-investment, or other reasons.

Adopting Review Protocols for Energy Conservation

Also taking a cautious approach, the City of New Rochelle, NY, is considering a green building strategy that focuses solely on energy efficiency, applicable to one- and two-family residential construction and renovation. It is drafting checklists that must be completed by building professionals to certify that plans submitted conform to the provisions of the New York Energy Conservation Construction Code. Under state law, this code must be enforced by all local building

enforcement officials. By having licensed professionals who represent applicants certify code compliance, the City enlists their expertise and supplements the capacity of its local code staff to ensure that the state energy code standards are met. The state code contains extensive provisions, requires significant training and experience to interpret and enforce, and contains different standards for small residential buildings than for commercial and other larger structures. The state energy code contains extensive energy conservation standards but, unlike LEED, it does not focus on other environmental objectives, such as a project's water efficiency or the sustainability of materials used and potential health impacts for occupants. While modest in scope, the approach that New Rochelle is considering builds on the existing legal structure of its state's energy code, which localities are obliged to enforce. It allows the City to develop expertise, build professional relationships, establish baseline protocols, and test the adequacy of the state code before adopting more stringent energy standards or other environmental provisions.

*Property Tax
Incentives/Other Incentives*

Some argue that impact fees can be charged on new developments that are not "green" and award the proceeds to those that are. Portland, OR, for example, is considering adopting a green building "Feebate" (or fee rebate). The proposed Feebate program, applicable to residential buildings over 1,200 square feet, presents developers with three options: (1) buildings built to code will be charged a standard impact fee; (2) buildings built to meet the LEED Silver standards will have the impact fee waived; and (3) buildings built to LEED Gold or Platinum standards will receive a reward payment (or feebate). Portland's potential Feebate program also contains a special incentive for affordable housing—awarding affordable housing developers the reward payment for meeting only the LEED Silver standards, instead of Gold or Platinum. In addition, the program also incentivizes energy efficiency by waiving impact fees for homes that achieve an ENERGY STAR Home Energy Rater Score of at least 75.

Under special legislation adopted by the state legislature

in 2008, the City of Syracuse, NY, is authorized to exempt LEED certified buildings from local property taxes according to a schedule in the law that tracks the level of LEED certification and the type of building involved.³² New residential structures are eligible for property tax exemptions over a 15-year period, starting with 100% exemptions for all levels of LEED certification; exemptions decline in later years to lesser degrees for the more stringent levels of certification.

Federal law provides energy tax credits to businesses that incorporate solar or geothermal energy technology, combined heat and power, small wind, and fuel cells in building projects.³³ The State of New York offers a tax credit to owners of green buildings³⁴ and the state's Energy Research and Development Authority (NYSERDA) offers a wide variety of grants and loans to homeowners, developers, and municipalities.³⁵ Like in Seattle, developers can be offered density bonuses under New York land use law in exchange for providing building and neighborhood amenities such as energy-conserving construction, vegetated roofs, or street-level landscapes.³⁶

Incentives of these types can be combined with local legal requirements or used independently to achieve energy savings and environmental benefits that exceed otherwise applicable building and land use law.

Greening Publicly Owned and Financed Buildings

Municipalities across the country have adopted green building requirements for city-owned and city-funded buildings. In addition to the examples set by Denver and Arlington, mentioned above, the Seattle, WA, City Council passed a resolution in 2000 requiring city-funded new construction and major remodels of facilities and buildings over 5,000 gross square feet of occupied space to achieve LEED certification at the Silver level.³⁷ In 2001, Portland, Oregon, began requiring that any new city-owned buildings achieve LEED certification at the Silver level. In 2005, Portland raised this certification level to Gold and added "requirements for energy performance, stormwater management, water conservation, ecoroof installation, and construction and demolition waste

recycling.’’³⁸ The mayor of Boston issued an Executive Order in 2007 requiring all City projects to obtain formal LEED certification³⁹—effectively requiring newly constructed buildings to exceed the state energy code standards by 14%.

Among a number of techniques that the City of New York, NY, has adopted to promote green development is the requirement that city-owned and certain city-funded buildings be LEED certified.⁴⁰ New York City estimates that it owns approximately 1,300 buildings and leases over 12.8 million square feet of office space, and that over \$12 billion of construction will be affected by this legislation in its ten-year capital plan. Imposing these requirements on itself “will substantially reduce New York City’s electricity consumption, air pollution and water use, as well as improve occupant health and worker productivity [W]ithout 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.”

Conclusion

Nationwide, states and localities are taking action to strengthen standards for sustainability—protecting their natural environments and fighting climate change. Given the issues and opportunities presented by both energy efficiency and comprehensive green building initiatives, there is much work to be done in both the public and private sector. One thing that is certain is that with either mandatory federal requirements or significant federal incentives for energy efficiency and green buildings, the practices of attorneys will be affected significantly. Real estate developers will be vying for bonuses under local codes or required to meet new standards, and local governments will be asking how they can encourage or require greener buildings and greater sustainability. There is a new vocabulary emerging and a need for attorneys in the real estate, land use, municipal, and environmental fields to enhance their understanding of the language, process, regulatory options, and organizations behind energy codes and green building standards.”

Encouragement from the federal government and state governments, combined with the prospect of funding from ARRA and potential funding connected to ACESA mandates, provides hope that municipalities will have the support they need to engage successfully in this important initiative, to avoid obvious pitfalls, and to create a positive track record that other localities can emulate. Local governments routinely act as laboratories for experimentation when challenged by crises such as high energy costs, water and air pollution, and climate change. The local green building and energy code experiments tracked in this article create a menu of options for municipalities to consider, raise a host of legal issues begging for resolution, and challenge states and federal agencies to provide guidance and assistance.

Examples set by state energy codes like that of Massachusetts can serve as a guide for other states to go beyond the IECC. With DOE approvals for at least 27 state energy plans under ARRA, which includes required energy code compliance with the 2009 IECC and ASHRAE 90.1-2007, the ma-

jority of U.S. states have already begun to remove obstacles to increased energy efficiency—actions that will put them in the lead for compliance under Title II of ACESA. In states that allow local governments to impose stronger measures for energy conservation, municipalities can continue to advance their standards beyond those of the state code through mandates like those of Red Hook and Greenburgh, incentive programs like those of Seattle and Blooming Grove, or even example-setting public requirements like those of Denver and Arlington.

On both the energy efficiency and green building fronts, it is unlikely that the legal issues raised in this article will hinder these emerging local initiatives. The history of land use law provides a strong basis for local action and experimentation, particularly when aided by strong federal and state support.

¹American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (1st Sess. 2009) (as passed by House, June 26, 2009), *available at* http://energycommerce.house.gov/Press_111/20090701/hr2454_house.pdf.

²Energy Conservation and Production Act § 304, 42 U.S.C. § 6833 (2006).

³*Id.* at § 201. (The relevant cited portion is located at page 323).

⁴In June, Governor Patterson announced a legislative package designed to create and retain jobs and advance clean energy initiatives in New York. Press Release, Governor David A. Paterson, Governor Paterson Announces Legislative Package to Advance Clean Energy Economy, Create New Jobs in New York, and Save Taxpayers Millions of Dollars (June 5, 2009) (*available at* http://www.state.ny.us/governor/press/press_0605092.html). Included in the package are amendments to the state energy law that will increase the required energy efficiency of buildings. On May 27, Act No. 0045 became law Vermont, directing the Commissioner of the Department of Public Service to adopt the 2009 IECC and ASHRAE 90.1-2007—to comply with ARRA—by January 1, 2011 and achieve 90% compliance within eight years. *See* Paul Karrer, Vermont Legislature Passes Law to Comply with ARRA Standards, <http://bcap-energy.org/node/458> (last visited July 21, 2009). Similar bills are awaiting passage in many other states, including Michigan and Delaware. *See* H. B. 4756, 95th Leg., Reg. Sess. (Mich. 2009), *available at* <http://www.legislature.mi.gov/documents/2009-2010/billintroduced/House/pdf/2009-HIB-4756.pdf>; *see also* Paul Karrer, Delaware Legislature Approves Model Energy Code Bill, <http://bcap-energy.org/node/415> (last visited July 21, 2009).

⁵*See* Paul Karrer, DOE Approves 29 State and Territory Energy Plans Under Federal Stimulus Act, <http://bcap-energy.org/node/461> (last visited July 21, 2009).

⁶[Resourcecenter.pnl.gov, Relationship Between Standard 90.1 and the IECC](http://resourcecenter.pnl.gov/Relationship%20Between%20Standard%2090.1%20and%20the%20IECC), <http://resourcecenter.pnl.gov/>

[cocoon/morf/ResourceCenter/article//1567](http://resourcecenter.pnl.gov/Relationship%20Between%20Standard%2090.1%20and%20the%20IECC) (last visited June 12, 2009).

⁷*See* Building Codes Assistance Project, Code Status: Commercial, <http://bcap-energy.org/node/21> (last visited July 21, 2009); *see also* Building Codes Assistance Project, Code Status: Residential, <http://bcap-energy.org/node/123> (last visited July 21, 2009).

⁸[Resourcecenter.pnl.gov, Relationship Between Standard 90.1 and the IECC](http://resourcecenter.pnl.gov/Relationship%20Between%20Standard%2090.1%20and%20the%20IECC), <http://resourcecenter.pnl.gov/cocoon/morf/ResourceCenter/article//1567> (last visited June 12, 2009).

⁹International Code Council, About the ICC: Introduction to the ICC, <http://www.iccsafe.org/news/about/> (last visited June 12, 2009).

¹⁰*E.g.*, The state of New York has a mandatory statewide energy code but state law permits local governments to adopt more restrictive standards for energy efficiency. There is no requirement that these more restrictive standards be preapproved, but such local enactments must be filed with the New York State Codes Council within 30 days of adoption. New York Energy Conservation Construction Code, N.Y. ENERGY LAW § 11-104 (McKinney 2007). For further information, *see* New York State Department Of State Building Energy Code Page, <http://www.dos.state.ny.us/code/energycode/nyenergycode.htm> (last visited on July 21, 2009).

¹¹American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. § 201, (1st Sess. 2009), *available at* http://energycommerce.house.gov/Press_111/20090701/hr2454_house.pdf. (The relevant cited portion is located at page 327).

¹²*See* 780 MASS. CODE REGS. 120.AA (2009), *available at*: <http://>

www.mass.gov/Eeops/docs/dps/inf/appendix_120_aa_jul09_09_final.pdf.

¹³BLOOMING GROVE, N.Y., Local Law § 235-14.1(A)(3) (2009).

¹⁴See Seattle Climate Action Now, Resources, <http://www.seattlecan.org/resources/index.htm> (last visited July 21, 2009).

¹⁵See Executive Order No. 123 from John W. Hickenlooper, Mayor, City of Denver (Oct. 24, 2007), *available at* <http://www.greenprintdenver.org/docs/CCDXO123.pdf>.

¹⁶See ARLINGTON ENVTL. SERV, DEP'T, POLICY FOR INTEGRATED FACILITY SUSTAINABILITY (2008), *available at* <http://www.arlingtonva.us/Departments/EnvironmentalServices/epo/PDFfiles/file69950.pdf>.

¹⁷See City of Arlington, AIRE: Arlington Initiative to Reduce Emissions, <http://www.arlingtonva.us/portals/topics/Climate.aspx> (last visited July 21, 2009).

¹⁸RED HOOK, N.Y., Local Law, § 74 (2009).

¹⁹Code of the Town of Greenburgh, NY, § 100.15 (2009), *available at* <http://www.ecode360.com/?custId=GR0237>.

²⁰See H. B. 4575, 95th Leg., Reg. Sess. (Mich. 2009), *available at* <http://www.legislature.mi.gov/documents/2009-2010/billintroduced/House/pdf/2009-HIB-4575.pdf>; *see also* Michigan Legislature Introduces Bills on ARRA Compliance and Local Green Standards (May 11, 2009), *available at*, <http://bcap-energy.org/node/413>.

²¹N.Y. ENVTL. CONSERV. LAW Ch. 43-B, Art. 8 (McKinney 2009) (commonly referred to as the State Environmental Quality Review Act (SEQRA)); N.Y. COMP. CODES R. & REGS. tit. 6, pt. 617 (2009).

²²Additional green buildings standards have been promulgated under the EPA's Energy Star Program, by the National Home Builders for all residential buildings, and by the Green Building Initiative, which owns the U.S. license for Green Globes, a green commercial building rating system.

²³A federal district court granted a preliminary injunction regarding the enforcement of certain provisions of the City of Albuquerque's Energy Conservation Code. *AHRI v. City of Albuquerque*, 2008 U.S. Dist. LEXIS 106706 (D.N.M. Oct. 3, 2008). The offending provisions required the installation of high performance heating, air conditioning, and ventilation equipment in certain buildings. The court found that regulatory authority over HVAC equipment was preempted by the federal Energy Policy and Conservation Act of 1975 (42 U.S.C. §§ 620 *et seq.*) as amended by the National Appliance Energy Conservation Act of 1987, Pub. L. No. 100-12, 101 Stat. 103 (1987) and the Energy Policy Act of 1992, 42 U.S.C. §§ 6311-6317 (2006).

²⁴TOWN OF BABYLON, N.Y., CODE ch. 89, art. VIII.

²⁵Seattle, Wash., An Ordinance related to land use and zoning; revising regulations for Downtown Seattle. Ordinance #122054 (Apr. 12, 2006), *available at* <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?s1=&s2=&s3=&s4=122054&s5=&Sect4=AND&l=20&Sect1=IMAGE&Sect2=THESON&Sect3=PLURON&Sect5=CBOR1&Sect6=HITOFF&d=CBOR&p=1&u=%2F%7Epublic%2Fcbor1.htm&r=1&f=G>.

²⁶CITY OF SEATTLE, DEP'T OF PLANNING AND DEV., 2006 DENSITY

BONUS INCENTIVE, *available at* http://www.seattle.gov/dpd/cms/groups/pan/@pan/@sustainablebuilding/documents/web_informational/dpdp_018423.pdf.

²⁷LEED—NC covers all building elements, including core and shell and interiors.

²⁸LEED—CS covers base building elements (structure, envelope and systems) and recognizes the division between owner and tenant responsibility for design and construction, where the owner develops the base building, and the tenant builds out the commercial interiors.

²⁹SEATTLE, WASH., MUNICIPAL CODE 23.49.020(B)(1) (2009), *available at* <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?s1=23.49.020&s2=&S3=&Sect4=AND&l=20&Sect3=PLURON&Sect5=CODE1&d=CODE&p=1&u=%2F%7Epublic%2Fcode1.htm&r=1&Sect6=HITOFF&f=G>.

³⁰CITY OF BOSTON, MASS., ZONING CODE § 37-1 (2007), *available at* <http://www.bostonredevelopmentauthority.org/pdf/ZoningCode/Article37.pdf>.

³¹*Id.* § 37-4; *see* U.S. Green Building Council: About USGBC, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=124> (last visited July 21, 2009).

³²N.Y. REAL PROP. TAX LAW § 485-m (McKinney 2009) (effective July 21, 2008).

³³26 U.S.C.A. § 48 (West Supp. 2008).

³⁴N.Y. TAX LAW § 19 (McKinney 2009) (effective Apr. 12, 2005).

³⁵*See* NYSERDA, Local Government Sustainability Initiatives in

NYS, <http://www.nyserda.org/programs/Municipal/default.asp?i=8> (last visited July 21, 2009).

³⁶N.Y. TOWN LAW § 261-b (McKinney 2009) and N.Y. VILLAGE LAW § 7-703 (McKinney 2009), adopted in 1991, and N.Y. GEN. CITY LAW § 81-d (McKinney 2009), adopted in 1992, grant parallel authority to towns, villages, and cities to adopt incentive zoning systems and set forth the specific provisions that must be followed.

³⁷Seattle, Wash., A Resolution endorsing the City of Seattle Environmental Management Program's Sustainable Building Policy. Resolution #30121 (February 22, 2000), *available at* <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?s1=&s2=&s3=30121&s4=&Sect4=AND&l=20&Sect1=IMAGE&Sect2=THESON&Sect3=PLURON&Sect5=RESN1&Sect6=HITOFF&d=RESN&p=1&u=%2F%7Epublic%2Fresn1.htm&r=1&f=G>.

³⁸*See* CITY OF PORTLAND, OFFICE OF SUSTAINABLE DEV., CITY OF PORTLAND PROPOSED HIGH PERFORMANCE GREEN BUILDING POLICY, *available at* <http://www.portlandonline.com/bps/index.cfm?c=45879&a=220879>.

³⁹EXECUTIVE ORDER OF MAYOR THOMAS MENINO: AN ORDER RELATIVE TO CLIMATE ACTION IN BOSTON (April 13, 2007) *available at* http://www.cityofboston.gov/environmentalenergy/pdfs/clim_action_exec_order.pdf.

⁴⁰CITY OF NEW YORK, N.Y., LOCAL LAW NO. 86 (2005), *available at* http://www.nyc.gov/html/dob/downloads/pdf/ll_86of2005.pdf.