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Renewable Energy and
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Patricia E. Salkin

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Renewable Energy And Land Use Regulation (Part 1)

Patricia E. Salkin



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is the Raymond & Ella Smith Distinguished Professor of Law, Associate Dean and Director, Government Law Center, at Albany Law School. This paper largely comprises relevant excerpts from a series of recently published and forthcoming law review articles by the author in the *William & Mary Environmental Law and Policy Review* ("Sustainability and Land Use Planning: Greening State and Local Land Use Plans and Regulations to Address Climate Change Challenges and Preserve Resources for Future Generations"); the *Hofstra Law Review* (with Ostrow) ("Cooperative Federalism and Wind: A New Framework for Achieving Sustainability"); the *University of Houston Environmental & Energy Law & Policy Journal* ("Can You Hear Me Up There? Giving Voice to Local Communities Imperative for Achieving Sustainability"); and the *University of Colorado Law Review* ("New York Climate Change Report Card: Improvement Needed for More Effective Leadership and Overall Coordination with Local Government"). This paper was prepared for the August 2009 ALI-ABA annual Land Use Institute.

A. Introduction

1. Global warming, climate change, reducing greenhouse gas emissions, reducing the carbon footprint, and going green are just some of the buzz words in the news that have captured the attention of lawmakers and policymakers at all levels of government. In Congress, lawmakers have proposed, among other things, mandating standards to reduce greenhouse gas emissions, and governors across the country have announced myriad programs designed to encourage government use of green products, the construction of green buildings, and the offering of a combination of tax incentives and grants for private developers and other members of the public who develop and install various renewable energy products. America Climate Security Act of 2007, S. 2191, 110th Cong. (2007), available at [http://thomas.loc.gov/cgi-bin/query/z?c110:S.2191](http://thomas.loc.gov/cgi-bin/query/z?c110:S.2191;); Lieber-

man-Warner Climate Security Act of 2008, S. 3036, 110th Cong. (2008), *available at* http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:s3036pcs.txt.pdf; Reducing Global Warming Pollution from Vehicles Act of 2008, S. 2555, 110th Cong. (2008), *available at* <http://thomas.loc.gov/cgi-bin/query/z?c110:S.2555>; Guidelines and Specifications for the Procurement and Use of Environmentally Sensitive Cleaning and Maintenance Products for all Public and Non-Public Elementary and Secondary Schools in New York State, <http://greencleaning.ny.gov/docs/GreenGuidelines.pdf>; Connecticut LEED Standards and State Requirements, www.cga.ct.gov/2008/rpt/2008-R-0162.htm; Summary of Government LEED Incentives—March 2009, www.usgbc.org/ShowFile.aspx?DocumentID=2021. In addition, interstate initiatives, such as the Climate Registry and the Regional Greenhouse Gas Initiative (which includes Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont) call for reductions in emissions from all states using a cap and trade CO₂ system. The Climate Registry is a program involving 31 states, representing 70 percent of the country's population, announcing a multi-state and tribe collaboration designed to develop and manage a greenhouse gas emissions reporting system. See www.theclimateregistry.org for more information. *See also* Overview of RGGI CO₂ Budget Trading Program, www.rggi.org/docs/program_summary_10_07.pdf.

2. Local governments are also beginning to pay more attention to the issues. Almost a thousand mayors have signed on to the Climate Protection Agreement, www.usmayors.org/climateprotection/agreement.htm, agreeing to, among other things, endorse and implement anti-sprawl land use policies and urban forest restoration projects to address climate change issues. *Id.* Many U.S. cities have joined the ICLEI-Local Governments for Sustainability, an international association that promotes smart planning, sustainable development, and the implementation of initiatives focused on slowing global warming. ICLEI-Climate, www.iclei-usa.org/programs/climate; www.iclei-usa.org/about-iclei/members/member-list. In addition, localities across the country have enacted policies, programs, and regulations aimed at reducing the carbon footprint, and many communities have formally pledged to reduce greenhouse gas emissions.
3. It is initiatives at the local government level that have the greatest potential for most quickly and most efficiently slowing the pace of global warming. This is because local governments are the critical decision-makers in how communities use and conserve key resources. They have begun to incorporate principles and goals of sustainability and carbon reduction into comprehensive land use plans. For example, some of the comprehensive plans call for energy reduction, smart planning to encourage pedestrian transit and decrease dependency on the automobile, introduction of additional mass transit, water conservation principles such as xeriscaping, heat island reduction principles, and urban forest mandates, as well as the introduction of community gardening. In addition, municipalities have enacted laws incorporating into their building and zoning codes green building standards such as the Leadership in Energy and Environmental Design (LEED) standard developed by the United States Green Building Council (USGBC) and the USGBC's pilot Neighborhood Development (ND) program. LEED Certifiable vs. LEED Certified, www.greenerbuildings.com/blog/2008/03/11/leed-certifi-able-vs-leed-certified (last visited June 26, 2008); Santa Monica Green Building Program, <http://greenbuildings.santa-monica.org/mainpages/newordinances.html> (last visited June 26, 2008); City of Santa Cruz Green Building Program, Standards for Compliance, www.cityofsantacruz.com/mod-

ules/showdocument.aspx?documentid=3639 (last visited July 2009); U.S. Green Building Council, What is LEED?, www.usgbc.org/DisplayPage.aspx?CMSPageID=222; U.S. Green Building Council, LEED for Neighborhood Development, www.usgbc.org/DisplayPage.aspx?CMSPageID=148. “Energy star” laws are also being integrated into building and zoning codes. *See, e.g.*, Town of Greenburgh, NY, Municipal Code §100-15: Energy Star Requirements, www.e-codes.generalcode.com/codebook_frameset.asp?t=gsr&index=0237_A&request=Energy%20Star&fuzzy&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999.

B. Local Climate Change Action Plans

1. Many local governments have followed the lead of the states and have developed local climate action plans. For example, New York City enacted the Climate Change Protection Act with the goal of reducing the city’s operational greenhouse gas emissions by 30 percent of 2006 levels by 2017. City of New York, Local Law No. 55 of 2007, *available at* <http://nylcv.org/node/2737/print>. The goal is to be reached through programs set up as part of PlaNYC 2030, and annual city-wide greenhouse gas inventories are to be posted on the city’s website. www.nyc.gov/html/planyc2030/html/home/home.shtml. City of New York, Local Law No. 55 of 2007, *available at* <http://nylcv.org/node/2737/print>. Westchester County, New York passed a similar resolution intended to mitigate possible sources of climate change within the county. The law proposes to reduce greenhouse gases to 20 percent below 2005 levels by 2015 and to 80 percent below 2005 levels by 2050. It also calls for the completion of a county-wide inventory of greenhouse gas emissions, the development and implementation of a county-wide climate change action plan, and increased public education and open communication. County of Westchester, Resolution No. 149 of 2008. www.ecode360.com/?custId=WE0640. The Town of New Castle amended its code in 2008 to rename the Solid Waste Advisory Board as the Sustainability Advisory Board. Town of New Castle, Local Law No. 6 of 2008. In addition to its existing duties, the Sustainability Advisory Board is now responsible for developing greenhouse gas reduction targets and recommending programs to meet those goals. It is required to undertake a GHG inventory, to suggest options for increasing energy efficiency and reducing energy use, to encourage the use of alternative energy, to continue monitoring the town’s recycling program, to promote water conservation and efficient use, to develop suggestions for a green building code, to track the effectiveness of land use planning changes at lowering emissions, and to work cooperatively with neighboring government bodies to achieve emissions reductions. Town of New Castle, Local Law No. 6 of 2008. www.ecode360.com/?custId=NE0395.
 - a. Illustrative local climate action plans of some bigger cities are briefly discussed below to provide an idea of the breadth of and variation in these documents.
2. *Denver, Colorado*
 - a. Denver’s 2007 climate action plan was prepared by an advisory council through a process that included significant public participation and expert contributions, and it includes a set of recommendations for reducing emissions. www.greenprintdenver.org/docs/greenprint_report.pdf. After finding that the city’s initial goal of reducing emissions by 10 percent of 1990 levels “appears to be attainable,” the plan recommends a second target of reducing emissions to below 1990 levels.

The plan lists 10 specific goals: (1) encourage residents and businesses to adopt energy saving and sustainable practices; (2) incentivize energy conservation through tiered utility rates; (3) create a voluntary travel offset program; (4) lead by example by developing carbon-neutral city buildings and other city programs; (5) enhance recycling programs; (6) adopt mandatory energy efficiency standards for new buildings; (7) increase energy efficiency in existing homes; (8) require the use of “green” concrete; (9) support compact pedestrian and bicycle friendly and transit oriented development; and (10) promote alternative transportation strategies of all types. The climate action plan also contains information about the city’s greenhouse gas inventory, which sought to determine the amount of emissions produced by various sectors of the city, and it lists a number of specific policy recommendations for emissions reductions strategies at the regional, state, and federal levels.

3. *Los Angeles, California*

- a. The Los Angeles 2007 climate action plan, “Green LA,” suggests that “the threat of climate change is really an opportunity to transform Los Angeles into the greenest big city in America—a model of urban sustainability for the 21st century.” http://environmentla.org/pdf/GreenLA_CAP_2007.pdf, 3. This will be a challenge as the city now emits 0.2 percent of worldwide greenhouse gas emissions—as much as the entire country of Sweden. *Id.* The city’s greenhouse gas inventory also showed that more than half of its emissions were attributable to cars and trucks, and a third could be traced to municipal operations, including the city-managed power utility. *Id.* at 3–4. The city’s climate action plan calls for emissions to be reduced to 35 percent below 1990 levels by 2030, and to achieve this goal, additional actions are needed. *Id.* at 10. As the plan explains:

The city must leverage change in the public and private sectors through land use regulation, building guidelines, and investments in transit. It also has the power to provide leadership, stimulate market demand, model innovative and profitable green businesses, promote private investment, create a business-friendly regulatory environment for green companies, and invest in workforce development programs that speed growth of the green economy while improving the income of residents in disadvantaged communities.

Id. at 5.

- b. Some of the actions proposed in Green LA include increasing the city’s renewable energy supply to 35 percent of its capacity by 2020; improving the efficiency of existing non-renewable power plants; enacting private sector green building standards; retrofitting all city buildings to improve efficiency; installing 50 cool roofs annually on city buildings and converting public pools to solar heat; distributing nearly 3 million compact fluorescent light bulbs to city residents; reducing per capita water use by 20 percent; converting most of the city fleet to alternative fuels; making transit more easily accessible, such as by requiring it to be translated into multiple languages; expanding the regional rail system; promoting transit oriented development; encouraging infill; increasing the solid waste diversion rate to 70 percent; improving sustainability at the city’s ports and airports; creating 35 new parks and revitalizing the Los Angeles River; reducing the urban heat island effect by planting one million trees; leveraging city purchasing and regulations to encourage the development of green research and technology; creating workforce training programs for green collar workers; improving emergency preparedness; developing plans to address drought, wildfires, sea level rise, and climate-related health problems; and amending the zoning and building codes to minimize the effects of climate change. *Id.* at 5–7.

4. *Montgomery County, Pennsylvania*

- a. The Montgomery County Greenhouse Gas Reduction Task Force was formed in January 2007 to create an emissions reduction plan for the county, which is located adjacent to Philadelphia County. The county's greenhouse gas inventory showed that its emissions levels were lower than the national average, but that they had grown steadily between 1994 and 2004, "largely due to increase in transportation, electrical use, and fuel energy." The climate action plan, adopted in December 2000, which recognizes that global warming is likely to decrease the county's agricultural production, harm natural habitats, and create health and safety threats due to changing and extreme weather patterns, contains the task force's recommendations for strategies to deal with these impacts. The task force also noted that the county's 2005 comprehensive plan could be instrumental in lowering emissions:

The overall guiding visions in the [comprehensive] plan include ongoing multi-municipal and regional cooperation and smart growth and preservation. Sustainable compact development in and near existing towns with infrastructure and transportation opportunities is essential in meeting these visions. This land use pattern called for in the plan would reduce reliance on automobile use and would support existing mass transit facilities. Further the plan recognizes the importance of energy use and conservation.

- b. Regarding these policies, the task force noted that the county had created a number of model ordinances and technical assistance programs for municipalities to help meet the goals of the comprehensive plan.
- c. Some of the other recommendations made in the plan include adopting a green building ordinance; providing low interest loans to people who live near their work sites; using land use planning to reduce driving needs by encouraging mixed-use design, concentrated growth, infill and redevelopment, and transit oriented development and by discouraging leap frog growth and sprawl by planning for services; promoting sustainable agriculture; planting new trees and increasing vegetation coverage by using flexible zoning techniques to maximize forest preservation and by installing green roofs; encouraging composting; and using waste digestion technologies to reduce emissions at waste water plants.

5. *Cleveland, Ohio*

- a. Sustainable Cleveland recommends a number of zoning and planning techniques to advance its goals. http://planning.city.cleveland.oh.us/cwp/sus_oview.php. The plan first identifies a number of trends that need to be addressed, including population decline and resulting urban deterioration; environmental degradation; land use patterns; the rise in obesity and other lifestyle-related illnesses; local foods purchasing; transportation; education; the changing economy; workforce mobility; high performance/green building; energy conservation/renewable energy; and recycling and solid waste disposal. http://planning.city.cleveland.oh.us/cwp/sus_trend.php. Cleveland has also identified its assets: ample unused land; city and regional successes to build on; a strong network of local organizations promoting sustainability issues; existing local models for sustainable development; existing mixed-use land use patterns; and natural features, like Lake Erie. http://planning.city.cleveland.oh.us/cwp/sus_assts.php. The plan also acknowledges that it will face significant challenges in achieving its sustainability goals, including inadequate personnel and financial resources, apathy in the private

and public sectors, energy-wasteful construction practices, and existing environmental degradation. http://planning.city.cleveland.oh.us/cwp/sus_chall.php.

- b. Building on these assessments, Cleveland was able to develop a menu of sustainability policies and strategies. The broad policies support sustainable development patterns and practices, sustainable economic patterns, green building, non-motorized and mass transit, energy conservation, renewable energy, brownfields remediation, recycling and waste management, and air quality improvement. http://planning.city.cleveland.oh.us/cwp/sus_policy.php. Some of the more specific land use and planning techniques recommended by the city to promote the goals of the Sustainable Cleveland plan include innovative and flexible zoning districts (such as open space/recreation districts, midtown mixed use districts, live-work overlay district, business revitalization districts, urban townhouse districts, planned unit development districts, and pedestrian retail overlay districts); a downtown surface parking lot ban; suitably proportioned urban lot sizes; the incorporation of transit-oriented design into the site review process; a draft city bikeway plan; a program to install bike racks and street benches; green building training for building inspectors; development incentives, especially for infill; and a housing trust fund and housing rehabilitation programs. The city has also created the positions of sustainability programs manager and land revitalization manager to help implement its sustainability goals. Advisory committees of bicyclists and pedestrians also aid in the development and implementation of the plan.

6. *Santa Fe, New Mexico*

- a. The Sustainable Santa Fe Plan revolves around the three principles of environmental stewardship, economic health, and social justice, but it also addresses more specific goals, including adopting and enforcing sustainable land use codes and policies, increasing the use of alternative transportation methods, preventing further sprawl and maintaining existing neighborhoods as vibrant and lively living areas, increasing economic opportunity, better managing storm water and watershed resources, and improving the city's open spaces and recreational areas. www.santafenm.gov/DocumentView.asp?DID=702.
- b. The development of renewable energy resources is another important part of the sustainability plan. www.santafenm.gov/index.asp?NID=1364. For social and environmental justice reasons, the plan rejects nuclear power as a viable option, recommending that the city concentrate on reducing the city's energy demands to forestall the construction of new fossil fuel-based power plants. This will be accomplished through an energy audit and targeted efforts to reduce peak energy demand, as well as educating residents about energy efficiency and encouraging more renewable energy production through incentives for both large and small-scale generators. Santa Fe is not only looking for ways to increase its renewable portfolio; the city is also trying to make sure that its low-income residents can access adequate energy supplies even when prices rise. In this regard, the city wants to require the state utility to notify it before shutting off any resident's power, and it also wants to increase the aid available to low income households for weatherization. With respect to transportation, the Sustainable Santa Fe Plan seeks to transform the city:

from a car culture, to one that moves at many speeds simultaneously: an environment filled with pedestrians, bicyclists, drivers of low speed electric vehicles (LEVs), scooters, plug-in hybrid electric vehicles (PHEVs), and buses and trains operating on alternative fuels.

www.santafenm.gov/index.asp?NID=1212

C. Local Governments And LEED

1. The United States Green Building Council's Leadership in Energy and Environmental Design Standard, originally developed for commercial design, now includes programs for residential and other uses. U.S. Green Building Council, What is LEED?, www.usgbc.org/DisplayPage.aspx?CMSPageID=222 (last visited July 2009). The program promotes the use of sustainable locations for building and the use of recycled material and energy- and water- efficient appliances and fixtures, increased insulation, and stormwater/greywater recycling, while still promoting aesthetic quality. U.S. Green Building Council, LEED for New Construction and Major Renovations, www.usgbc.org/ShowFile.aspx?DocumentID=1095. The ratings a building can receive range from silver to gold and platinum. USGBC: LEED Rating Systems, www.usgbc.org/DisplayPage.aspx?CMSPageID=222 (last visited June 16, 2008). A number of communities have required LEED certification to be achieved to obtain a building permit, mandating that new commercial or even residential construction now be assessed according to LEED guidelines. City of San Rafael Green Building Ordinances, www.cityofsanrafael.org/Government/Community_Development/Planning/Green_Building.htm (last viewed June 27, 2008); City of Santa Cruz Green Building Standards, www.cityofsanta-cruz.com/Modules/Show-Documents.aspx?documentid=3639 (last visited July 2009). For example, local governments across New York have started to enact local laws relating to green building development specifically tied to LEED standards.
 - a. Erie County, New York requires major county construction and renovation projects to meet at least the LEED silver rating. Rockland County, New York requires county projects costing more than \$1 million to comply with the LEED silver criteria and to actually seek formal certification. County of Rockland, Local Law No. 14 of 2008, www.ecode360.com/?custId=RO1021, §3. Waivers are available under the law if the county executive determines that "the benefits of waiving this local law's requirements outweigh the environmental benefits to the residents of Rockland County[.]" County of Rockland, Local Law No. 14 of 2008, www.ecode360.com/?custId=RO1021, §4.
2. New York City's green building law, among other things, requires municipal projects costing more than \$2 million to be designed to meet LEED silver criteria, although actual certification is unnecessary. City of New York, Local Law No. 86 of 2005, www.nyc.gov/html/dob/downloads/pdf/ll_86of2005.pdf. In addition to city projects, however, the LEED requirements apply to private developments that receive more than 50 percent city funding or more than \$10 million of city money. Nassau County, New York requires compliance with the standards for the LEED silver rating, but actual certification is not required, and exemptions can be granted on a number of financial grounds. County of Nassau, Local Law No. 16 of 2007, http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50640&infobase=na2789.nfo&softpage=Browse_Frame_Pg42, §6 (exemptions). Ulster County, New York requires high-performance green building standards for county projects through a requirement that buildings comply with LEED Silver, unless it is not financially possible. Ulster County, Resolution No. 393 (Novem-

ber 8, 2006), www.co.ulster.ny.us/resolution-archives/2006/393-06.pdf. The Town of Babylon, New York requires applicants for commercial, industrial, and large residential projects to submit completed LEED checklists (or their equivalent, as deemed acceptable by the commissioner of planning and development). Town of Babylon, Local Law No. 40 of 2006, www.ecode360.com/?custId=BA0924, §89-86 (A). Although the law does not require buildings to actually achieve LEED certification, it does require a project checklist to demonstrate that the project is LEED-certifiable before a building permit can be issued. *Id.* §89-86(C). See www.greenerbuildings.com/blog/2008/03/11/leed-certifi-able-vs-leed-certified for commentary on the difference between LEED certified and LEED certifiable. The law also allows developers that do achieve certification to receive a fee refund; fees for buildings that do not achieve certification are deposited into a green building fund. *Id.* §89-86(B).

3. Despite what seems to be a growing trend, practitioners should be cautious about tying LEED requirements into local laws for a number of important reasons. The U.S. Green Building Council updates LEED standards from time to time. Failure to recognize this in the drafting of local laws will lead to confusion and litigation later. Further, LEED certification can be expensive and may be too limiting with respect to the individual developers and their project teams, who would all need to be LEED certified if the project is to be certified by LEED. It makes a difference whether the local law simply provides that the project should meet LEED standards but not be certified, as opposed to mandating the actual certification. Other organizations, such as ANSI, are beginning to emerge with their own standards for green buildings, www.nahbgreen.org/Guidelines/ansistandard.aspx, and failure to be flexible to recognize the benefits of these alternatives may be a mistake. These represent just a short list of the emerging concerns over municipalities' apparent "love affair" with LEED certification.

D. Energy Star

1. The Energy Star Rating system is a joint venture of the United States Environmental Protection Agency and the United States Department of Energy. History: Energy Star, www.energystar.gov/index.cfm?c=about.ab_history. Initially a program aimed at labeling efficient computers and monitors in 1992, the program has expanded, now covering a full range of appliances, heating and cooling systems, and even newly constructed residential and commercial buildings. *Id.* A number of municipalities have incorporated energy star construction and appliance requirements into their building codes, requiring thermal envelope efficiency (R-values and U-values only), electrical savings and superior ventilation, and equipment efficiency requirements. Riverhead, NY, Chapter 52, Building Construction, www.e-codes.generalcode.com/codebook_frameset.asp?t=gsr&index=0508_A&request=Energy%20Star&fuzzy=&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999; Greenburgh, NY, Chapter 100, Building Fire and Plumbing, www.e-codes.generalcode.com/codebook_frameset.asp?t=gsr&index=0237_A&request=Energy%20Star&fuzzy=&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999; Huntington, NY, Chapter 87, Building Construction, www.e-codes.generalcode.com/codebook_frameset.asp?t=gsr&index=0566_A&request=Energy%20Star&fuzzy=&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999. For example, in New York a number of municipalities have adopted local laws relating to energy efficiency in buildings. Babylon, Brookhaven, Great Neck, Greenburgh, Huntington, North Haven, North Hempstead, Oyster Bay, Riverhead, and Southampton have all joined the Long Island Power Authority Energy Star Homes program and incorporated En-

ergy Star requirements into their building codes. Town of Babylon, Local Law No. 23 of 2006, www.ecode360.com/?custId=BA0924; Town of Brookhaven, Local Law No. 24 of 2006, www.ecode360.com/?custId=BR0012; Village of Great Neck, Bill 11 of 2008 (Energy Conservation Construction Code); Town of Greenburgh, Local Law No. of 2002, www.ecode360.com/?custId=GR0237; Town of Huntington, Local Law No. 24 of 2007, www.ecode360.com/?custId=HU0566; Village of North Haven, Local Law No. 1 of 2008, www.ecode360.com/?custId=NO1009, Pt. II, Ch. 55, Art. I, §55-4 (K) (1); Town of North Hempstead, Local Law No. 12 of 2008, www.ecode360.com/?custId=NO0081; Town of Oyster Bay, Local Law No. 12 of 2006, http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50615&infobase=oyster.nfo&softpage=Browse_Frame_Pg42; Town of Riverhead, Local Law No. 55 of 2006, www.ecode360.com/?custId=RI0508; Town of Southampton, Local Law No. 58 of 2008, www.ecode360.com/?custId=SO0286. See www.lipower.org/newscenter/pr/2006/062806_brookhaven.html, explaining that the Long Island Power Authority (LIPA) gave municipalities \$25,000 in grants to adopt Energy Star standards, though the LIPA Energy Star Homes program is generally targeted at providing incentives for builders, www.lipower.org/efficiency/nyesh_builder.html.

2. *Preemption*

a. The issue of preemption or conflict with state and federal statutes and regulations is an important consideration related to the adoption of local energy code standards. Although there are no federal preemption cases covering New York at this time, a recent case from a federal district court addressing an effort by the City of Albuquerque, New Mexico, is instructive. *AHRI v. City of Albuquerque*, 2008 U.S. Dist. LEXIS 1076706 (D.N.M. 10/3/2008). In October 2008, a federal district court issued a preliminary injunction barring enforcement of the City of Albuquerque's green building code pending the outcome of a lawsuit, brought by HVAC and water heating equipment trade organizations, contractors, and distributors, on the ground that the code was preempted by federal law. *Id.*

b. Among other things, the green building code called for a 30 percent increase in energy efficiency for new commercial and residential buildings as well as for those undergoing substantial renovations. To achieve this goal, the code provided that single-family homes should have more insulation and more efficient heating, cooling and ventilating, water heating, and lighting; and commercial and residential structures would have to undergo thermal bypass inspections. The judge wrote that:

The city's goals (in enacting the disputed code) are laudable. Unfortunately, the drafters of the code were unaware of the long-standing federal statutes governing the energy efficiency of certain HVAC and water heating products and expressly preempting state regulation of these products when the code was drafted and, as a result, the code, as enacted, infringes on an area preempted by federal law.

Id. at *37.

c. The judge noted, however, that if there are other provisions of the green code that were not affected by the dispute, the parties could submit an order for consideration to narrow the scope of the preliminary injunction.

E. Planning And Zoning

1. Zoning and land use regulations are an essential part of any sustainable development strategy. Through zoning and subdivision laws, local governments can enact a host of land use regulations intended to reduce reliance on automobile travel, encourage walking and biking, promote the use of renewable energy, and protect valuable natural resources and open spaces. Some of these zoning laws include cluster development regulations, general subdivision regulations, mixed use development, solar protection ordinances, and wind ordinances.
2. Storm water and landscaping ordinances are another type of police power regulation that can be strengthened to promote sustainability. Low impact development ordinances can mitigate the negative effects of storm water (such as runoff and erosion) on natural water systems by restricting the use of impervious surfaces and increasing on-site bioretention. In arid climates, on the other hand, xeriscaping ordinances can help conserve water by requiring climate-tolerant landscaping and water-efficient irrigation systems. Rainwater collection requirements can also encourage water reuse.
3. *Incorporating Green Development Into Local Comprehensive Land Use Planning*
 - a. A survey conducted in 2005 by the American Planning Association revealed that 65 percent of those polled, almost entirely planners, believe that energy issues are “very connected” to planning, with 93.9 percent of all those polled responding that there is a role for planners in helping communities conserve energy. www.planning.org/research/energy/survey/2005. Specifically, planners felt that transportation, sustainability, and smart growth were the three most important issues related to energy consumption. *Id.* All three of these concerns are best addressed on a community-wide scale by first addressing them in the comprehensive land use plan. States typically require municipalities to develop comprehensive land use plans as part of the local zoning process. American Planning Association, Standard State Enabling Act, www.planning.org/growingsmart. Across the country, these plans are starting to display increased awareness regarding the goal of sustainability; many plans now express the specific desire to create more integrated communities that promote smart growth and sustainable development, with California specifically requiring local government to address global warming and climate change. Santa Cruz General Plan, www.ci.santa-cruz.ca.us/modules/ShowDocument.aspx?documentid-3680; Marin County General Plan, Energy Section (page 125), www.co.marin.ca.us/depts/cd/main/fm/cwpdocs/CWP_CD2.pdf. More plans now include statements promoting pedestrian transit over the use of the automobile and include proposals for increased pedestrian amenities to facilitate the transition. Berkeley Bicycle Plan (draft), www.ci.berkeley.ca.us/contentdisplay.aspx?id=6656; Santa Cruz General Plan, CD 5.1.1 (page 38), www.ci.santa-cruz.ca.us/modules/ShowDocument.aspx?documentid-3680; Seattle Bicycle Master Plan, www.seattle.gov/transportation/docs/bmp/final/BikeMasterPlanCOMPLETE.pdf. These types of goals certainly can impact the reduction of carbon emissions within individual communities, while alleviating clogged arterials, reducing the strain on the community in general, and increasing the overall livability of the community in conjunction with the promotion of sustainability and personal health.
 - b. As an outgrowth of the smart growth movement, many communities have expressed desires to move from traditional concepts of Euclidean zoning through the articulation of new visions in

comprehensive plans. Specifically, calls for integration of planned unit development, including traditional neighborhood development (TND), are increasingly found in local plans. Pleasanton, CA, What is Planned Unit Development?, www.ci.pleasanton.ca.us/pdf/plan-plannedunit.pdf (last visited June 26, 2008); Robert H. Freilich et al., 21st Century Land Development Code, 8–12 (2008); Stapleton, Redefine Community, <http://stapleton.cciconstellation.net/Redefine-Community.aspx>. Mixed use development (MUD), transit oriented development (TOD), and cluster development are all strategies being identified as desirable to reduce sprawl. MUD aims to incorporate compatible uses into the same space, usually residential, commercial, and retail—thereby reducing reliance on the automobile. Fremont, CA, Mixed Use Development Ordinance, www.fremont.gov/DocumentView.aspx?DID=1107. TOD generally seeks to place high density mixed use development communities within walking distance of transportation hubs—generally rail—which allow the residents of the community both walking access to commercial and retail nearby and mass transit access to nearby cities, towns, and points of interest. Robert H. Freilich et al., 21st Century Land Development Code, 6–12 (2008). *See also* <http://transitorienteddevelopment.dot.ca.gov/PDFs/TOD%20Study%20Executive%20Summary.pdf>; PG H13 Berkeley Plan, [www.ci.berkeley.ca.us/uploadedFiles/Planning_\(new_site_map_walk-through\)/Level_3_-_General/GeneralPlan.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_(new_site_map_walk-through)/Level_3_-_General/GeneralPlan.pdf). For example, the general plan for the City of Santa Cruz, California calls for a more walkable community by implementing traffic calming methods, de-emphasizing traditional zoning in favor of mixed use projects, and promoting mixed use projects along transportation corridors. Santa Cruz Draft General Plan 2030, www.ci.santa-cruz.ca.us/index/.aspx?page=1208. The general plan of the City of Santa Barbara, California calls for mixed use projects and further provides for the creation of a Green Building Program and the creation of staff positions to implement it. Santa Barbara General Plan, Housing Element, www.santabarbaraca.gov/NR/rdonlyres/7C84C2A7-EA1A-45D8-A55D-C20FD22B9971/0/FINAL_HEU.pdf. Santa Barbara also encourages private tree planting, preserving open space, and community gardening. Santa Barbara General Plan, Conservation Element, www.santabarbaraca.gov/NR/rdonlyres/D7BABDBF-870B-4BEA-80DC-3006AA7FD398/0/ConservationElementforweb.pdf. Increased public transportation, incentives for carpooling, and prohibitions on the construction of drive-thrus or the conversion of facilities into drive-thrus are also part of the Santa Barbara strategy. It also calls for current drive-thru facilities to be equitably phased out of existence. Santa Barbara General Plan: Housing Element, www.santabarbaraca.gov/NR/rdonlyres/7C84C2A7-EA1A-45D8-A55D-C20FD22B9971/0/FINAL_HEU.pdf; Santa Barbara General Plan: Conservation Element, www.santabarbaraca.gov/NR/rdonlyres/D7BABDBF-870B-4BEA-80DC-3006AA7FD398/0/ConservationElementforweb.pdf. The Concord, Massachusetts “2020 vision” suggests preservation of agricultural land and open space while promoting cluster development through zoning, and the Petaluma, California plan calls for building to occur on a “small grain” scale, meaning smaller lot sizes, to encourage pedestrian transit by reducing the distance between commercial facilities. Concord Today, Visions for 2020 and Major Themes, www.concordma.gov/pages/ConcordMA_Finance/clrp/Chapter_1.pdf; Central Petaluma Specific Plan: Community Design, <http://cityofpetaluma.net/cdd/pdf/cpsp/cpsp/cpsp-chap4-community-design.pdf>. Not only does this reduce the need for automobile transportation, but it also reduces total lot size and some of the need for landscape irrigation.

c. The heat island effect, which is a result of large amounts of heat-absorbing material in an area, can substantially increase energy costs in a city. Heat Island Effect: Basic Information, www.epa.gov/heatisland/about/index.htm. In California, the cities of Santa Cruz and Petaluma both address the need to reduce the amount of water used for residential and commercial building irrigation. The Santa Cruz and Petaluma general plans both call for “xeriscaping,” which involves landscaping with native or drought-resistant plants to reduce irrigation needs. Santa Cruz Draft General Plan 2030, www.ci.santa-cruz.ca.us/index/.aspx?page=1208; Central Petaluma Specific Plan: Community Design, <http://cityofpetaluma.net/cdd/pdf/cpsp/cpsp/cpsp-chap4-community-design.pdf>. Furthermore, the Santa Cruz plan calls for the implementation of water conservation measures to save 300 million gallons of water annually and promotes the development of sustainable wastewater and storm water systems. Santa Cruz Draft General Plan 2030, www.ci.santa-cruz.ca.us/index/.aspx?page=1208. Petaluma’s plan calls for the use of reclaimed/recycled water for irrigation purposes. Central Petaluma Specific Plan: Community Design, <http://cityofpetaluma.net/cdd/pdf/cpsp/cpsp/cpsp-chap4-community-design.pdf>. Santa Barbara, California encourages tree plantings, preserving open space, and developing community gardens. Santa Barbara General Plan: Conservation Element, www.santabarbaraca.gov/NR/rdonlyres/D7BABDBF-870B-4BEA-80DC-3006AA7FD398/0/ConservationElementforweb.pdf.

4. *Heat Island Reduction Ordinances*

a. Some municipalities also adopted heat island reduction ordinances that require changes in the building code as well as changes in zoning and land use planning, reflecting a desire for greater vegetation to cool the city, clean the air, beautify the city, and reduce energy costs associated with cooling. This is accomplished by implementing tree planting programs and urban forest ordinances and initiatives as well as requiring energy-reflecting material in the building code and promoting such materials through grants. Chicago Cool Roofs Program, http://egov.cityofchicago.org/web-portal/COCWebPortal/COC_ATTACH/CoolRoofsGrantsProgramDescription.pdf.

5. *Tree Ordinances/Initiatives*

a. Los Angeles has launched a million trees initiative, a partnership between the city, community groups, and private individuals, with the goal of planting and maintaining one million trees in Los Angeles. The Initiative: One Million New Trees, www.milliontreesla.org. Under its building and construction code, Olympia, Washington places requirements for numbers of trees and a tree replacement program when construction occurs. Olympia Municipal Code, Chapter 16.60: Tree Protection and Replacement, <http://olympi MUNICIPALCODE.ORG>. In Olympia, community members’ urban forestry program, planting fruit trees in low income neighborhoods, provides all of the benefits of an urban forest, plus food. Final Grant Report: Title VIII, “Healthy Urban Forests for Everyone,” www.urbanforestrysouth.org/resources/library/title-viii-final-grant-report-healthy-urban-forests-for-everyone. In terms of vegetation ordinances, Seattle’s commercial land use ordinance 122311 is one of the more unique in the country. Seattle Green Factor, www.seattle.gov/dpd/Permits/GreenFactor; www.seattle.gov/dpd/Planning/Neighborhood_Business_District_Strategy/Overview. Along with revising commercial regulations that promote pedestrian traffic (doing away with requirements for parking spaces in urban areas and light rail stations and

reducing parking requirements elsewhere, for example), Seattle's commercial land use code now requires that new installations have at least 30 percent of the parcel vegetated and uses a point system to determine adequate vegetation implementation. Green roofs, green walls, and increased landscaping are encouraged. Seattle Green Factor, www.seattle.gov/dpd/Permits/GreenFactor; [www.seattle.gov/dpd/Planning/Neighborhood Business District Strategy/Overview](http://www.seattle.gov/dpd/Planning/Neighborhood_Business_District_Strategy/Overview). Davis, California places requirements on vegetation and shading in parking lots. Davis Parking Lot Shading Ordinance, www.city.davis.ca.us/cmo/citycode/detail.cfm?p=37&q=2315.

F. Promoting The Use Of Solar Energy

1. Solar energy captured through photovoltaic panels is becoming a more viable option for power production on a smaller scale, often affixed on residences and commercial buildings. However, many localities have ordinances that have the effect of inhibiting solar panel placement. Bryan Walsh, Solar Power's New Style, www.time.com/time/magazine/article/0,9171,1813954,00.html. Former Vice-President Al Gore encountered such an ordinance when he attempted to install solar panels on his Belle Meade home, and he petitioned the town board to have the ordinance altered. www.usatoday.com/weather/climate/globalwarming/2007-03-20-gore-solar_N.htm. Belle Meade ordinances prevented the placement of "energy generators" anywhere but on the ground. The ordinance was in place because many members of the town have installed backup generators on their property due to the frequent power outages the town suffers during thunderstorms. Some states have enacted laws that preserve the right to install and use solar panels, and some localities have taken action to promote it. For example, the Solar Rights Acts in Florida and Arizona provide the right to install solar panels, regardless of any local ordinances or community covenants that would otherwise prohibit the installation. Florida Solar Rights Law, www.flaseia.org/legislative/flasolarlaws.htm; 33-439. Restrictions on installation or use of solar energy devices invalid, www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/33/00439.htm&Title=33&DocType=ARS. Maryland's Solar Protection laws require that restrictions not impose an "unreasonable limitation" on the installation of solar collection systems. Maryland Solar Access Laws, www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=MD01R&state=MD&CurrentPageID=1&RE=1&EE=1. For other solar access laws, see www.smartcommunities.ncat.org/buildings/gbcodtoc.shtml#solar.
 - a. More recently, Colorado has enacted the "Solar Ready Homes" bill in May 2009. See www.state.co.us/gov_dir/leg_dir/olls/sl2009a/sl_235.pdf. The new law requires homebuilders to offer future homeowners an option for solar pre-wiring and to provide purchasers with a list of contractors to install such technologies. In addition, the purchase of solar panels is authorized to be included in mortgages. This law promotes the integration of renewable energy at the construction phase, when it is most affordable for the average homeowner. A debate is also starting to surface surrounding new "right to dry" laws as a method of promoting solar energy. See Ian Urbina, "Debate Follows Bills to Remove Clotheslines Ban," *New York Times*, October 10, 2009, available at www.nytimes.com/2009/10/11/us/11clothesline.html; Clotheslines Stage a Comeback, <http://greeninc.blogs.nytimes.com/2009/06/04/clotheslines-stage-a-comeback>; Connecticut Office of Legislative Research, Right to Dry Legislation in New England and Other States (January 2008), www.cga.ct.gov/2008/rpt/2008-R-0042.htm; and http://pcj.typepad.com/planning_commissioners

jo/2009/08/right-to-dry.html (information on Vermont's Right to Dry Law). Effective September 2009, a new law in Maine is designed to promote the use of solar energy and to avoid unnecessary obstacles to the use of solar energy devices. 2009 New Laws, H.B. No. 62 (Chapter 273 of the Laws of 2009). The law declares a legislative intent that owners and renters of residential property have the right to install and use solar energy devices, including a solar clothes-drying device. Reasonable restrictions may be enforced, however, that protect the public health and safety, protect buildings from damage, protect historic or aesthetic values, and protect shorelands under shoreland zoning provisions.

2. Pursuant to legislation, Berkeley's Financing Initiative for Renewable and Solar Technology (FIRST) provides financing for people who want to install solar collection systems on their homes. Measure G was voted into law by Berkeley voters and requires the city to take steps to reduce greenhouse gas emissions 80 percent by 2050. More information can be found at www.berkeleyclimateaction.org; Berkeley Financing Initiative for Renewable and Solar Technologies, www.ci.berkeley.ca.us/Contentdisplay.aspx?id=26580. The city will levy a tax against such individuals to pay for the cost of installation over a 20-year period, and the tax will be equal to or lower than the cost that the building's owner would save on utilities. *Id.* The financing mechanism is based on the "underground utility district" concept, whereby a city would finance to have a community's utility wires placed underground, with that community then paying the principal back in the form of a tax. *Id.* Boulder, Colorado has enacted an ordinance that protects solar access, providing different levels of protection for different areas of the city. It defines a hypothetical "solar fence" around the property, which ensures that neighboring properties do not intrude on sunlight available to appropriately placed solar panels. Boulder, Co. Solar Access Guide, www.ci.boulder.co.us/files/PDS/codes/solrshad.pdf.
3. Although some municipalities have not yet specifically enacted zoning regulations to protect solar implementation, they have relaxed parts of their codes that normally would have prohibited or restricted its use through modifying historic preservation laws and providing exemptions from maximum building height requirements. For example, Northampton, Massachusetts specifically exempts the installation of solar panels from review by the Historic District Commission. Northampton, MA City Code: Chapter 195, www.e-codes.generalcode.com/codebook_frameset.asp?t=gsr&index=2226_A&request=Solar%20Panels&fuzzy=&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999. Orleans, Massachusetts takes a more moderate approach to the issue, allowing the installation of skylights, wind generators, and solar panels in its Historic District only insofar as the installation does not compromise the historical integrity of the buildings or the district itself, per guidelines specified in the ordinance. Orleans, MA: Old King's Highway Historic District Commission, www.e-codes.generalcode.com/codes/1150_A/Ch.%20A202,%20Old%20Kings%20Highway%20Regional%20Historic%20District%20Commission%20Bulletin.pdf#xml; www.e-codes.generalcode.com/searchresults.asp?cmd=pdfhits&DocId=77&Index=C%3a%5cProgram%20Files%5cdtSearch%5cUserData%5c1150%5fa&HitCount=2&hits=3d3+3d4+&hc=2&req=Solar+Panels. Berlin, New Jersey does not count the height of solar panels as contributing to the overall maximum height requirement of the building, except that it can't be 10 feet or 10 percent above the maximum height. Berlin, NJ Borough Code, www.e-codes.generalcode.com/codebook_frameset.asp?ep=fs&t=gsr&index=0276_A&request=Solar%20Panels&fuzzy=&fuzziness=4&stemming=&phonic=&natlang=&maxfiles=999.

4. Municipal laws relating to solar energy have been in place for years in sunny states like California, Arizona, and Florida. As solar panels have become more commonplace in less ideal climates, communities in the northeast have also begun to enact solar ordinances to ensure that solar energy systems are used appropriately. The solar ordinances enacted by local governments in New York State generally tend to regulate these uses for aesthetic and safety reasons. However, with New York's newly adopted policy on net-metering, which in February 2009 changed the tariffs of six investor-owned utilities to strengthen and promote the installation of small-scale renewable energy programs in homes and businesses, the importance of local laws regulating renewable energy has increased substantially. www.dps.state.ny.us/Final_SIR_02-12-09_Clean.pdf. What follows are some examples from New York local governments with respect to the regulation of solar energy.
5. A number of municipalities, including the Town of Bethlehem, the Town of East Hampton, and the Town of Kent, specifically indicate that solar energy and access to sunlight are important public purposes of their general land use regulations. www.ecode360.com/ecode3-back/getSimple.jsp?custId=BE1011&guid=8993782; www.ecode360.com/ecode3-back/getSimple.jsp?&guid=8163507&j=256; www.ecode360.com/ecode3-back/getSimple.jsp?&guid=8322939&j=256.
 - a. The Village of Briarcliff Manor enacted a local law that allows solar energy collectors as permitted accessory uses in single-family residential districts, multi-family residential districts, and commercial districts. Various provisions in the law regulate solar energy equipment to ensure that it is minimally visible from neighboring properties and public areas. Village of Briarcliff Manor, Local Law No. 3 of 2007, www.ecode360.com/?custId=BR1701. The City of Albany's solar energy regulations permit solar energy equipment as accessory uses in all zoning districts, and the law expressly states that “[w]hile there are aesthetic considerations, the City has determined that the environmental and economic benefits outweigh potential aesthetic impacts.” Solar energy equipment must obtain a certificate of appropriateness if located in a historic district, and ground-mounted equipment may not be located in front yards. City of Albany, Albany City Code Article XIV, §375-9, www.ecode360.com/?custId=AL0934. The Town of Ithaca enacted a solar law in 2006 that permits rooftop solar collectors in all zoning districts and allows freestanding solar equipment as accessory uses in all districts. Town of Ithaca, Local Law No. 11 of 2006, www.ecode360.com/?custId=IT1944. The law also requires solar energy equipment to be installed by “qualified solar installers” and regulates the handling and disposal solar storage batteries. *Id.*
6. Local laws may also provide exemptions from height restrictions for solar energy equipment. For example, the City of Amsterdam exempts solar collectors from height restrictions and provides that they can only be as high as necessary to accomplish the purpose for which they are intended. www.ecode360.com/ecode3-back/getSimple.jsp?&guid=8071006&j=256. The Town of Bedford provides that, although maximum height limitations do not apply to solar energy collectors, the collectors may not extend more than 15 feet above the roof or cover more than 10 percent of the roof area. www.ecode360.com/ecode3-back/getSimple.jsp?&guid=6237436&j=256.
7. Municipalities may enact screening requirements and may consider the use of solar overlay zones to accomplish siting goals. The Town of Batavia enacted a local law that specifically provides that consideration should be given to the siting of residences to take best advantage of solar energy

and that the zoning board of appeals should take this into consideration when reviewing requests for area variances to accomplish solar energy goals. www.ecode360.com/ecode3-back/getSimple.jsp?&guid=8983839&j=256. Other municipalities, including the City of Cohoes and the Town of Bethlehem, provide for similar considerations under site plan review. www.ecode360.com/ecode3-back/getSimple.jsp?&guid=8476691&j=256.

8. Another method used to promote the use of solar energy at the local level is fee waivers or reductions. For example, the Town of Yorktown offers a 50 percent reduction in the building permit fee when the project includes solar improvements. Town of Yorktown, Local Law 4-2008, www.ecode360.com/ecode3-back/getSimple.jsp?&guid=6849802&j=256. The Town of Rotterdam exempts projects that include green energy reduction, including solar, from site plan application fees, and the Town of Southampton offers rebates for installation of solar energy systems. www.ecode360.com/ecode3-back/getSimple.jsp?&guid=7093522&j=256; www.ecode360.com/ecode3-back/getSimple.jsp?custId=SO0286&guid=8695756; www.ecode360.com/ecode3-back/getSimple.jsp?custId=SO0286&guid=8695759. Lastly, local governments interested in promoting solar energy should consider the use of incentive zoning to allow for density bonuses in exchange for the installation of renewable energy.

Part 2 of this outline will appear in the April issue, and will cover wind energy.

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