NEW YORK CLIMATE CHANGE REPORT CARD: IMPROVEMENT NEEDED FOR MORE EFFECTIVE LEADERSHIP AND OVERALL COORDINATION WITH LOCAL GOVERNMENT

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Climate change has rapidly become a focal point of international environmental policy debate as countries seek to develop and implement strategies to address the critical need to slow the pace of global warming. In the United States, the failure of the federal government to muster the political will necessary to deal with the challenges on a national level has placed the onus on state and local governments to assume a leadership role. As laboratories of innovation, state and local governments continue to experiment with a wide range of policies and initiatives designed to reduce greenhouse gas emissions, promote the use of renewable energy, and generally adopt sustainable development goals into plans, strategies, laws, and regulations. This Article takes a critical look at evaluating how New York, one of the largest contributors of carbon emissions, is progressing when it comes to addressing climate change. It examines a multitude of state programs and local-government initiatives and points to missed opportunities, most notably, a critical missing link of coordination among and between state and local levels of government.

INTRODUCTION

There is no longer any great doubt that global warming is occurring, and that it is primarily due to human activities that create greenhouse gas emissions.[1] Americans, moreover, pro-

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1. *See, e.g.*, Elizabeth Rosenthal & Andrew C. Revkin, *Science Panel Calls Global Warming 'Unequivocal,'* N.Y. TIMES, Feb. 3, 2007, at A1 ("In a grim and powerful assessment of the future of the planet, the leading international network of climate scientists has concluded for the first time that global warming is 'unequivocal' and that human activity is the main driver . . . ."); Intergovernmental

duce a disproportionate amount of these emissions.[2] Although the federal government has been slow to respond to climate change,[3] in April 2009 the U.S. Environmental Protection Agency ("EPA") took a significant step in formulating a national climate change strategy by issuing a formal declaration that greenhouse gases ("GHGs") endanger human health and well-being.[4] The ruling requires the EPA to address emissions, possibly through direct regulation, and it "signals to the rest of the world that the U.S., after years of lagging, is finally moving to address global warming on a federal level."[5]

During the past decade, while the federal government dragged its feet on the issue of global warming, many state and local governments have been stepping up to take a leadership role in the fight against climate change. Acting as laboratories of innovation, they have developed a wide range of policies and initiatives.[6] At the state level, climate change action plans

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Panel on Climate Change [IPCC], *IPCC Fourth Assessment Report: Climate Change 2007* (Nov. 2007), *available at* http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm#1. A small minority of scientists still believe that global warming is not real, or that it is not attributable to human activities, but the ranks of these skeptics belong to conservative groups that "operate far outside the mainstream of public discourse." Suzanne Goldenberg, *G2: The Green Pages: Meet the Skeptics: Barack Obama May Be Worried About Greenhouse Gases—But Not Everyone Is*, GUARDIAN (London), Mar. 12, 2009, at 16 (describing the International Conference on Climate Change, a meeting of global warming skeptics hosted by the conservative (and Exxon-funded) Heartland Institute).

2. *See* Natural Resources Defense Council, Global Warming Basics: What It Is, How It's Caused, and What Needs to Be Done to Stop It (Oct. 18, 2005) ("Though Americans make up just 4 percent of the world's population, we produce 25 percent of the carbon dioxide pollution from fossil-fuel burning—by far the largest share of any country. In fact, the United States emits more carbon dioxide than China, India and Japan, combined."), http://www.nrdc.org/globalWarming/f101.asp.

3. *See* Associated Foreign Press, *Obama Pledges U.S. Will Lead on Climate Change*, Apr. 5, 2009 (discussing European leaders' frustration with the Bush administration's climate policies, and their hope that the Obama administration will be different), http://www.kingstongreens.ca/MainPages/News.asp?News_ID=594.

4. Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18,886 (proposed Apr. 24, 2009) (to be codified at 40 C.F.R. ch. 1); Press Release, U.S. Envtl. Prot. Agency, EPA Finds Greenhouse Gases Pose Threat to Public Health, Welfare / Proposed Finding Comes in Response to 2007 Supreme Court Ruling (Apr. 17, 2009), *available at* http://yosemite.epa.gov/opa/admpress.nsf/0/0EF7DF675805295D8525759B00566924.

5. Bryan Walsh, *EPA's CO2 Finding: Putting a Gun to Congress' Head*, TIME, Apr. 18, 2009, http://www.time.com/time/health/article/0,8599,1892368,00.html.

6. *See, e.g.*, Patricia E. Salkin, *Sustainability and Land Use Planning: Greening State and Local Land Use Plans and Regulations to Address Climate*

have been developed to guide efforts to reduce GHG emissions in various sectors.[7] A number of states have adopted emissions reductions targets[8] and GHG monitoring and reporting programs,[9] and others have adopted renewable portfolio standards that require power utilities to obtain a certain percentage of their energy supply from non-GHG producing renewable sources.[10] Local governments have incorporated climate change concerns and sustainability goals into their comprehensive plans.[11] For example, they have adopted green building codes that require new construction projects to incorporate sustainable building practices in order to reduce building emissions and improve indoor air quality.[12] Some have started local

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Change Challenges and Preserve Resources For Future Generations, 34 WM. & MARY ENVTL. L. & POL'Y REV. (forthcoming 2009) (describing various state and local approaches to greening comprehensive plans; using the environmental review process to respond to climate change, land use regulations that can be used to increase sustainability, and green building laws).

7. *See* Pew Ctr. on Global Climate Change, Climate Action Plans (July 20, 2009), http://www.pewclimate.org/what_s_being_done/in_the_states/action_plan_map.cfm; U.S. Envtl. Prot. Agency, Global Warming— Actions, Action Plans (May 2004),]; *see also* Patricia E. Salkin, *Can You Hear Me Up There? Giving Voice to Local Communities Imperative for Achieving Sustainability*, 4 ENVTL. & ENERGY L. & POL'Y J. (forthcoming 2009) (describing state and local climate action plans).

8. *See* Pew Ctr. on Global Climate Change, Greenhouse Gas Emissions Targets (July 21, 2009), http://www.pewclimate.org/what_s_being_done/in_the_states/emissionstargets_map.cfm.

9. *See* Pew Ctr. on Global Climate Change, Greenhouse Gas Reporting and Registries (July 27, 2009), http://www.pewclimate.org/what_s_being_done/in_the_states/reporting_map.cfm.

10. *See* RYAN WISER & GALEN BARBOSE, LAWRENCE BERKELEY NAT'L LAB., RENEWABLES PORTFOLIO STANDARDS IN THE UNITED STATES: A STATUS REPORT WITH DATA THROUGH 2007 2 (2008), *available at* http://eetd.lbl.gov/ea/ems/reports/lbnl-154e-revised.pdf; Pew Ctr. on Global Climate Change, Renewable & Alternative Energy Portfolio Standards (July 29, 2009), http://www.pewclimate.org/what_s_being_done/in_the_states/rps.cfm.

11. *See, e.g.*, BETHLEHEM TOWN BD., TOWN OF BETHLEHEM COMPREHENSIVE PLAN AND GENERIC ENVIRONMENTAL IMPACT STATEMENT § 3.3 (2005), *available at* http://www.townofbethlehem.org/images/pageImages/EcoDevAndPlan/Comprehensive%20Plan%20FGEIS%20082405%20Per%20Saratoga.pdf (including a goal to "[p]romote energy efficiency and conservation, and the use of renewable energy in the town" by focusing on both public and private buildings); TOWN & VILL. OF COXSACKIE, COXSACKIE COMMUNITY ABBREVIATED ACTION PLAN § VIII(4.2) (2005), http://www.coxsackiecommunityplan.net/actionitemsummary.pdf (providing in part that the municipalities will "[w]ork to evaluate and promote alternative energy sources at larger development projects"); VILL. OF ALTAMONT COMPREHENSIVE PLANNING COMM., DRAFT COMPREHENSIVE PLAN 26 (2006), *available at* http://altamontvillage.org/complanone.htm (proposing a detailed set of action items to support the village's sustainability goals).

12. *See* U.S. Green Bldg. Council, LEED Initiatives in Governments and Schools (July 1, 2009), http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852

tree planting programs,[13] and others have enacted regulations to promote the siting of renewable energy equipment.[14] Other sustainability initiatives to be passed at the state and local level include requirements to purchase or generate renewable energy,[15] procurement policies supporting the purchase of energy efficient appliances and equipment made from recycled materials,[16] and plans to replace fleets with low-emission vehicles.[17] Grants and financial incentives for purchasing re-

(listing local governments that have adopted regulations based on the LEED rating system for green buildings).

13. *See, e.g.*, Million Trees L.A., The Initiative: One Million New Trees, http://www.milliontreesla.org/mtabout1.htm (last visited May 30, 2009) (describing the initiative, which is a joint project between the city of Los Angeles, businesses, and community groups).

14. *See, e.g.*, KATHERINE DANIELS, N.Y. STATE ENERGY RESEARCH & DEV. AUTH., WIND ENERGY: MODEL ORDINANCE OPTIONS 3–12 (2005), *available at* http://www.powernaturally.org/programs/wind/toolkit/2_windenergymodel.pdf (providing a model ordinance to New York local governments to promote wind turbine development); DRAFT MODEL SMALL WIND ORDINANCE FOR MARYLAND (2008), *available at* http://www.energy.maryland.gov/documents/DraftModelSmallWindOrdinanceforMD_000.pdf (providing a model ordinance to Maryland local governments to promote wind turbine development). *See also infra* Part II.E. Although ordinances regulating wind turbine construction have been enacted by many local governments, they are sometimes used to prevent the siting of turbines due to NIMBY— or "not in my back yard"— concerns. *See* Patricia E. Salkin & Ashira Pelman Ostrow, *Cooperative Federalism and Wind: A New Framework for Achieving Sustainability*, 38 HOFSTRA L. REV. (forthcoming 2009) (arguing that a federal law modeled on the Telecommunications Act of 1996 would better serve the country's interest in promoting wind development than current siting regimes, which often rely on local government decisions).

15. *See, e.g.*, Pew Ctr. on Global Climate Change, State Governments Purchasing Green Power (Apr. 11, 2008), http://www.pewclimate.org/what_s_being_done/in_the_states/green_power_programs.cfm; U.S. DEP'T OF ENERGY, OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY, WIND POWER FOR MUNICIPAL UTILITIES 3–6 (2002), *available at* http://www.windpoweringamerica.gov/pdfs/wpa/31679.pdf (describing several municipal wind projects).

16. *See, e.g.*, N.Y. Exec. Order No. 4 (Apr. 25, 2008), *available at* http://www.ogs.state.ny.us/EO4/pdf/FinalGreenProcurementEO.pdf; Cal. Integrated Waste Mgmt. Bd., Green Procurement Policies (Dec. 4, 2008), http://www.ciwmb.ca.gov/Buyrecycled/Policies/ (listing various green procurement policies from California agencies and local governments).

17. *See, e.g.*, S.F. Mun. Transp. Agency, Muni Hybrid Buses, http://www.sfmta.com/cms/mfleet/hybrids.htm (last visited May 30, 2009) ("The San Francisco Municipal Transportation Agency (SFMTA) has the goal of reducing its fleet greenhouse gas emissions to thirty percent below 1990 levels by the year 2012 and becoming 100 percent emission-free by 2020. SFMTA recently took another step forward in reaching these goals through the purchase of 86 Daimler-Chrysler Commercial Buses of North America (DCCBNA) Orion VII low floor diesel hybrid electric buses (DHEBs).").

newable energy equipment and improving energy efficiency in buildings and appliances have also become more common.[18]

To be truly effective and to attain quantifiable results, local governments must implement a variety of tools and techniques and send a consistent message to residents regarding the need to reduce GHG emissions. Local governments must look at opportunities for energy efficiency in municipally owned buildings and in services provided, as well as methods that can be utilized by local residents. While not exclusively a land use issue, some of the most effective strategies to slow climate change can be accomplished through modifications to local building codes, zoning ordinances, and other land use regulations.[19]

State level policies must also recognize the importance of local government sustainability initiatives and work to coordinate and cooperate with municipalities. Without such coordination, the proliferation of programs and initiatives may lead to confusion, potential diffusion of resources, less than perfect communication within and among government entities, and missed opportunities. Benchmarking programs must also be developed to determine whether the quantity of programs is yielding quantifiable results to ensure that investments are being made wisely.

As the third most populous state and one of the largest contributors to U.S. emissions,[20] New York State should play a leadership role in helping the country to become more sustain-

18. *See, e.g.*, City of Berkeley, Energy & Sustainable Development, Berkeley FIRST: Financing Initiative for Renewable and Solar Technology, http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=26580 (last visited May 30, 2009) (describing the city's program to finance the installation of solar panels on homes and businesses through the city's sustainable energy financing district and an amortized tax applied to participating property owners); N.C. Solar Ctr. & Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency, Financial Incentives for Energy Efficiency, http://dsireusa.org/summarytables/FinEE.cfm?&CurrentPageID=7&EE=1&RE=1 (last visited May 30, 2009); N.C. Solar Ctr. & Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency, Financial Incentives for Renewable Energy, http://dsireusa.org/summarytables/finre.cfm (last visited May 30, 2009).

19. *See, e.g.*, Salkin, *supra* note 6 (discussing land use strategies to slow climate change).

20. *See* U.S. ENERGY INFO. ADMIN., U.S. EMISSIONS DATA, STATE CARBON DIOXIDE EMISSIONS, STATE EMISSIONS BY YEAR (2008), *available at* http://www.eia.doe.gov/oiaf/1605/ggrpt/excel/tbl_statetotal.xls (covering 1990 through 2005 and listing New York state as having the eighth highest GHG emissions total in 2005).

able.[21] By evaluating state and local climate change initiatives in New York, and focusing on programs related to land use regulation, this Article seeks to illuminate some of the challenges and opportunities inherent in multifaceted and multilevel responses to global warming. This Article is not intended to critique all of the state-level programs and initiatives in New York. Rather, it seeks to demonstrate that while there is a substantial level of activity in New York with respect to climate change and energy efficiency issues, the true potential of these programs will not be fully realized because New York lacks a coordinated, comprehensive, and fully integrated inter-jurisdictional approach to addressing these challenges. Although New York is selected as the focus of this Article, similar observations may be made regarding jurisdictions throughout the country, and the recommendations are equally portable.

Part I of this Article briefly explores some of the state-level climate change initiatives and programs that have been introduced in New York. The more abundant local-level programs are surveyed in Part II, concentrating on emissions reductions targets, energy efficiency regulations, green building and procurement laws, and initiatives intended to encourage the development of renewable energy facilities. Part II focuses on local governments as the laboratories of innovation, highlighting the creative and ambitious programs adopted and tools and techniques employed to address climate change issues at the municipal level. This Part also contains a brief mention of federal and state preemption issues, as a reminder that all levels of government must work together with the same goals in mind. Finally, Part III explores several ways in which New York State can help to facilitate the creation of a comprehensive and integrated climate change policy. Included as recommendations are the creation of a climate change information clearinghouse and a statewide catalogue of climate change laws, the development of benchmarking tools, and the establishment of a state-local climate change task force.

21. For details on the climate change initiatives in other states, see Pew Ctr. on Global Climate Change, U.S. States & Regions, http://www.pewclimate.org/states-regions (last visited Aug. 2, 2009). *See also* Salkin, *supra* note 7 (discussing state climate action plans); Salkin & Ostrow, *supra* note 14 (discussing various state approaches to siting wind turbines).

I. NEW YORK STATE CLIMATE CHANGE INITIATIVES

In April 2009 the New York State Bar Association ("NYSBA") adopted the report of its Task Force on Global Warming,[22] which documents an impressive two dozen current state-level laws and programs on climate change. Among these programs are initiatives relating to the Regional Greenhouse Gas Initiative,[23] the development of state emissions reduction goals,[24] and the New York Energy Smart Program.[25] State initiatives have also been established to promote energy efficiency in government operations (state buildings and vehicles), to raise energy efficiency standards for consumer products, and to adopt California's vehicle emissions standards. An Office of Climate Change has been created within the New York State Department of Environmental Conservation ("DEC"), complementing the state Smart Growth Cabinet, the state Renewable Energy Task Force, and the state Sea Level Rise Task Force. Moreover, a statewide Energy Conservation Construction Code has been formulated, green building tax credits have been created, a renewable energy portfolio standard has been set, and policies have been enacted to promote landfill gas recovery, net metering, green residential building projects, and green procurement policies.[26] Issued in 2008, Executive Order 2 mandates the development of a State Energy Plan. A draft plan was released for public comment in August 2009, and it is expected to be adopted in final form in November 2009.[27]

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22. N.Y. STATE BAR ASS'N TASK FORCE ON GLOBAL WARMING, TAKING ACTION IN NEW YORK ON CLIMATE CHANGE (2009), *available at* http://www.nysba.org/AM/Template.cfm?Section=Task_Force_on_Global_Warming_Home&Template=/CM/ContentDisplay.cfm&ContentID=24349 [hereinafter TAKING ACTION IN NEW YORK]. The task force report was adopted by the House of Delegates on April 4, 2009. N.Y. State Bar Ass'n, Welcome to the Task Force on Global Warming, http://www.nysba.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=21372 (last visited May 30, 2009).

23. *See* Regional Greenhouse Gas Initiative, http://www.rggi.org/home (last visited Aug. 2, 2009); TAKING ACTION IN NEW YORK, *supra* note 22, at 12–13.

24. TAKING ACTION IN NEW YORK, *supra* note 22, at 13–14.

25. *See* N.Y. State Energy Research & Dev. Auth., http://www.getenergysmart.org/ (last visited Aug. 2, 2009) (providing information for homeowners, renters, developers, and owners of multi-family buildings to help reduce energy usage); TAKING ACTION IN NEW YORK, *supra* note 22, at 14.

26. *See* TAKING ACTION IN NEW YORK, *supra* note 22, at 19–28.

27. N.Y. Exec. Order No. 2 (Apr. 9, 2008), *available at* http://www.nysenergyplan.com/presentations/EO_2.pdf; ENERGY COORDINATING WORKING GROUP, 2009 NEW YORK STATE ENERGY PLAN: INTERIM REPORT 1-1 (2009), *available at* http://www.nysenergyplan.com/NYS%20Energy%20Plan%20-%20Interim%20Re

While the NYSBA report demonstrates a proliferation of state level sustainability initiatives, the fact remains that they exist within multiple state agencies and are largely uncoordinated.[28] Some of these initiatives were created through the legislative process, while others have been established through executive order or agency action.[29] Several agencies and authorities have responsibility for significant climate change programs, and their objectives are often similar or overlapping.[30]

For example, the New York State Energy Research and Development Authority ("NYSERDA") oversees a number of sustainability programs related to energy efficiency and renewables.[31] It has reorganized its website so that municipalities can quickly find information about available state incentives to promote "green" building projects,[32] as well as information about local government sustainability initiatives in the state.[33] NYSERDA also offers energy audits for municipal facilities, technical guidance on energy efficiency, financial and technical assistance for greening municipal fleets, and cost sharing on new construction and major renovations using green building techniques.[34] Information about energy efficiency and renewable energy programs is also available

port%20-%20March%2031%202009-web.pdf; N.Y. State Energy Plan, Current Schedule of Events, http://www.nysenergyplan.com/events.html (last visited Sept. 2, 2009).

28. As the NYSBA report recognizes, "New York has an impressive array of laws, policies and programs that contribute to reducing the amount of statewide GHG emissions. What is missing, however, is a statewide comprehensive climate change strategy that has a specific, measurable and binding reduction target." TAKING ACTION IN NEW YORK, *supra* note 22, at 1.

29. *See id.* at 3 ("The Legislature, the Governor, and numerous State agencies and authorities have already taken many steps to address climate change."). The NYSBA report provides further detail as to the origin of the state's various climate change programs. *See id.*

30. *See id.*

31. *See, e.g.*, N.Y. State Energy Research & Dev. Auth., Focus on Local Government, http://www.nyserda.org/municipalities/default.asp (last visited Aug. 2, 2009); N.Y. State Energy Research & Dev. Auth., Local Government Sustainability Initiatives in New York State (Green Buildings), http://www.nyserda.org/programs/Green_Buildings/local_gov.asp (last visited Aug. 2, 2009); N.Y. State Energy Research & Dev. Auth., Power Naturally, http://www.powernaturally.org/ (last visited Aug. 2, 2009) (providing information on NYSERDA's various renewable energy programs).

32. *See* Focus on Local Government, *supra* note 31.

33. *See* Local Government Sustainability Initiatives in New York State (Green Buildings), *supra* note 31.

34. Focus on Local Government, *supra* note 31.

from the DEC[35] and the Long Island Power Authority ("LIPA").[36] A one-stop resource for information on renewable energy incentives, equipment standards, policies, and siting regulations would make these programs more accessible to the public and to policy makers.[37]

The DEC also has a number of other climate change programs. The agency launched the Climate Smart Communities Initiative in February 2009, as a way to foster state and local partnerships to encourage climate protection.[38] Participating local governments pledge to set emissions reductions goals, improve municipal energy efficiency, encourage renewable energy use, and take other steps to combat climate change.[39] To help communities meet these goals, NYSERDA and the DEC developed a guide for local officials.[40] In March 2009, the DEC released for comment a draft

35. N.Y. State Dep't of Envtl. Conservation, Renewable Energy, http://www.dec.ny.gov/energy/40899.html (last visited Aug. 2, 2009) (discussing the Renewable Energy Task Force and the state's renewable portfolio standard, and providing links to other state agencies' renewable energy websites).

36. Long Island Power Auth., Save Energy and Money with the Long Island Power Authority, http://www.lipower.org/efficiency/ (click through to links) (last visited Aug. 2, 2009) (providing information about LIPA's rebates and incentives for residential and commercial energy efficiency and renewable energy projects).

37. *See* TAKING ACTION IN NEW YORK, *supra* note 22, at 35 (recommending that New York State create a clearinghouse of information regarding energy efficiency incentives and citing the Governor's 2009 State of the State Address, which also called for a centralized clearinghouse).

38. Press Release, N.Y. Dep't of Envtl. Conservation, Commissioner Grannis Calls of N.Y. Communities to Go "Climate Smart": State Offers New Guide to Help Local Governments Join the Fight Against Global Warming (Feb. 16, 2009), *available at* http://www.dec.ny.gov/press/51727.html.

39. *See* N.Y. State Dep't of Envtl. Conservation, Climate Smart Communities: Saving Energy and Helping the Climate, http://www.dec.ny.gov/energy/50845.html (last visited May 30, 2009). The Climate Smart Communities Pledge has ten primary components: (1) "Pledge to Combat Climate Change by Becoming a Climate Smart Community"; (2) "Set Goals, Inventory Emissions, Move to Action"; (3) "Decrease Energy Demand for Local Government Operations"; (4) "Encourage Renewable Energy for Local Government Operations"; (5) "Realize Benefits of Recycling and Other Climate Smart Solid Waste Management Practices"; (6) "Promote Climate Protection Through Community Land Use Tools"; (7) "Plan for Adaptation to Unavoidable Climate Change"; (8) "Support a Green Innovation Economy"; (9) "Inform and Inspire the Public"; and (10) "Commit to an Evolving Process." *Id.* As of April 30, 2009, more than thirty municipalities had agreed to make the pledge. *See* Press Release, New York State, Governor Paterson Announces 31 Communities Across the State Pledge to Reduce Greenhouse Gas Emissions (Apr. 30, 2009), http://www.state.ny.us/governor/press/press_0430091.html.

40. *See* STATE OF N.Y., CLIMATE SMART COMMUNITIES: A GUIDE FOR LOCAL OFFICIALS (2009), http://www.dec.ny.gov/docs/administration_pdf/cscguide.pdf.

guide for assessing energy use and GHG emissions in environmental impact statements.[41]

In the state legislature, more than a dozen bills have been introduced in the 2009 session related to climate change and energy efficiency. These bills address a variety of programs, including tax benefits and loans for energy efficiency or renewable energy expenditures, as well as requirements for energy efficiency in state operations and commercial products.[42] While additional climate change controls are

41. *See* N.Y. STATE DEP'T OF ENVTL. CONSERVATION, OFFICE OF AIR, ENERGY, AND CLIMATE, ASSESSING ENERGY USE AND GREENHOUSE GAS EMISSIONS IN ENVIRONMENTAL IMPACT STATEMENTS 1 (2009), http://www.dec.ny.gov/docs/permits_ej_operations_pdf/dftgrnhsegas.pdf. The guide is binding only on the DEC, although it notes that "[o]ther state and local agencies may choose to use this guide when serving as lead agency for a project subject to an [environmental impact statement] that includes a discussion of energy use or GHG emissions." *Id.* Moreover, according to Michael B. Gerard, "the experience under prior similar DEC policies for SEQRA analysis (such as for noise and for visual impacts) is that they become the standard used by most lead agencies." Michael B. Gerard, *Greenhouse Gases: Emerging Standards for Impact Review*, N.Y.L.J., Mar. 27, 2009, at 3. According to the draft,

> DEC anticipates that this guide could be applicable to large scale projects, including major stationary sources of air pollutants requiring a DEC permit such as electric generating facilities and solid waste facilities. [The guide may also be applicable to o]ther large proposed facilities or projects that generate thousands of vehicle trips or use significant amounts of electricity, such as very large-scale resort, residential, industrial, or commercial development projects . . . .

N.Y. STATE DEP'T OF ENVTL. CONSERVATION, *supra*, at 3. The policy would require quantifying projects' total emissions, including both direct emissions (e.g., those caused by on-site industrial processes or project fleets) and indirect emissions (e.g., those caused by off-site power plants supplying electricity to the site and emissions from vehicles travelling to and from the site). *Id.* at 5–6. The document provides guidance on how to estimate emissions from landfills and waste generation, and it also suggests the use of energy modeling software to estimate a building's energy demand. *Id.* at 9–10. In reviewing total GHG emissions, staff is directed to consider alternatives and mitigation measures. *Id.* at 10. A lengthy list of potential mitigation measures is included by way of example, as well as a listing of other sources of information to help guide the review. *See id.* at 11–14. While the guide directs the DEC to evaluate "the global warming implications of proposed projects," *id.* at 11, however, and while SEQR determinations must be made so as to avoid or minimize significant environmental impacts to the greatest extent possible, *id.*, the guide does not give any substantive advice as to when emissions impacts may be so serious as to outweigh "social, economic, and other considerations." *Id.*

42. *See, e.g.*, Assem. 5999, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A05999&sh=t (providing for "financing of the installation of distributed generation renewable energy sources or energy efficiency improvements"); Assem. 5998, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A05998&sh=t (financing "the installation of renewable energy sources or energy efficient improvements in the Peconic Bay region"); S. 2347, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assem

needed to ensure that New York takes a lead in responding to climate change, none of these bills contains proposals to streamline and coordinate the state's various sustainability programs.

II. GREEN LEGISLATION AT THE LOCAL LEVEL

Local governments have realized that land use, zoning, and building regulations can have a significant effect on environmental sustainability. In New York and elsewhere, local governments have taken the initiative to craft new laws and policies to reduce emissions, increase efficiency, and encourage renewable energy development.[43] Since these programs and approaches are relatively new, no significant benchmarking data exists to evaluate their effectiveness. Although not scientifically quantified by these local governments, anecdotally, the goal of reducing GHG emissions, and thereby reducing the carbon footprint, is being advanced. By way of illustration, what follows is a discussion of various approaches now in effect throughout New York State.

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bly.state.ny.us/leg/?bn=S02347&sh=t (enacting the "climate change solutions program act"); Assem. 5280, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A05280&sh=t (requiring general purpose lights in public buildings to be energy efficient); S. 1207, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=S01207&sh=t (creating a "replacement tires energy efficiency program" for certain vehicles); S. 1121, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=S01121&sh=t (creating the "New York state climate change task force"); Assem. 3080, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A03080&sh=t (creating a tax credit for "energy efficient home improvements"); Assem. 2672, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A02672&sh=t (creating the "sustainable energy loan program to assist homeowners in the installation of distributed generation renewable energy sources or energy efficiency improvements"); Assem. 2363, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A02363&sh=t (appropriating moneys to the New York city housing authority "to effectuate the installation of energy conservation measures in certain multifamily dwelling units"); Assem. 667, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=A00667&sh=t (creating a tax exemption from sales and compensating use taxes on alternative energy systems); S. 407, 2009 Leg., 231st Sess. (N.Y. 2009), *available at* http://assembly.state.ny.us/leg/?bn=S00407&sh=t (providing energy efficiency standards for "general purpose lighting products").

43. *See, e.g.*, Salkin, *supra* note 6 (describing numerous local land use initiatives intended to reduce emissions).

A. Climate Change Laws

One trend among municipalities that have sought to "green" their local laws is the creation of general climate change laws or resolutions. Local governments around the United States have enacted this sort of climate change legislation to establish a process for inventorying GHG emissions and setting GHG reduction goals. Since 2005, more than 900 mayors have signed on to the U.S. Conference of Mayors Climate Protection Agreement.[44] The agreement commits participating local governments to strive to meet the Kyoto Protocol target of reducing emissions 7 percent "from 1990 levels by 2012."[45] Many of the local governments that have signed on have formally adopted GHG reduction targets.[46]

In New York, about forty local chief elected officials have become signatories to the U.S. Conference of Mayors Climate Protection Agreement.[47] A few municipalities have adopted GHG emission reduction goals and comprehensive strategies to meet those goals. In 2007, for example, New York City enacted the Climate Protection Act with the goal of reducing the city's operational GHG emissions by 30 percent of 2006 levels by 2017.[48] The goal is to be reached through programs set up as part of PlaNYC 2030,[49] and annual city-wide GHG inventories are to be posted on the city's website.[50]

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44. *See* The U.S. Conference of Mayors, List of Participating Mayors, http://www.usmayors.org/climateprotection/list.asp (last visited May 30, 2009).

45. *See* The U.S. Conference of Mayors, U.S. Conference of Mayors Climate Protection Agreement, http://www.usmayors.org/climateprotection/agreement.htm (last visited May 30, 2009).

46. Seattle, for example, has made a number of amendments to its comprehensive plan to advance climate change goals. *See, e.g.*, Seattle, Wash., Ordinance 121701 (Dec. 17, 2004), *available at* http://clerk.ci.seattle.wa.us/~public/CBOR1.htm (search for "Ordinance No. 121701"; then follow hyperlink starting with "AN ORDINANCE"); Seattle, Wash., Ordinance 122610 (Dec. 21, 2007), *available at* http://clerk.ci.seattle.wa.us/~public/CBOR1.htm (search for "Ordinance No. 122610"; then follow hyperlink starting with "AN ORDINANCE") (enacting the targets specified in the U.S. Conference of Mayors Climate Protection Agreement).

47. *See* List of Participating Mayors, *supra* note 44.

48. *See* N.Y., N.Y., Local Law No. 55 (Dec. 5, 2007), *available at* http://www.nyccouncil.info/pdf_files/bills/law07055.pdf.

49. *Id.* The New York City government website discusses these programs. *See* PlaNYC, http://www.nyc.gov/html/planyc2030/html/home/home.shtml (last visited May 30, 2009). Some of the initiatives discussed on the site include recommendations to create a city infrastructure task force, to work with neighborhoods to develop "community-specific climate adaptation strategies," and to establish processes to plan for climate change mitigation. PlaNYC, Climate Change,

In 2008, Westchester County passed a similar resolution intended to mitigate possible sources of climate change within the county.[51] The law proposes to reduce GHGs to 20 percent below 2005 levels by 2015 and to 80 percent below 2005 levels by 2050.[52] It also calls for the completion of a county-wide inventory of GHG emissions, the development and implementation of a county-wide climate change action plan, and increased public education and open communication.[53]

At the town level, New Castle amended its code in 2008 to rename the Solid Waste Advisory Board as the Sustainability Advisory Board.[54] In addition to its existing duties, the Sustainability Advisory Board is now responsible for developing GHG reduction targets and recommending programs to meet those goals.[55] 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.[56]

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http://www.nyc.gov/html/planyc2030/html/plan/climate.shtml (last visited Aug. 30, 2009).

50. N.Y., N.Y., Local Law No. 55 (Dec. 5, 2007), *available at* http://www.nyccouncil.info/pdf_files/bills/law07055.pdf.

51. *See* Westchester County Bd. of Legislators, *County Board Commits to Reduce Greenhouse Gas Emissions in the County*, NY: MEDIA CENTER, Sept. 8, 2008, http://www.westchesterlegislators.com/MediaCenter/articleDetail.asp?artid=441.

52. *Id.*

53. *Id.*

54. *See* New Castle, N.Y., Local Law No. 6 (Sept. 25, 2008). In its findings statement for Local Law No. 6, the Town acknowledged that "climate change poses a real and increasing threat to our local and global environments and that it is due to greenhouse gas emissions" and that "[o]ur response to climate change provides us with an unprecedented opportunity to implement environmentally sustainable practices to protect and enhance the quality of life for current and future generations of the Town." *Id.* § 1. The law explains that

> [s]ustainable practices and programs are those designed to promote efficient and wise use of resources and materials such as: (i) using renewable energy sources, (ii) implementing reduce, reuse, and recycle programs to minimize the amount of solid waste generated and to conserve natural resources, (iii) protecting the quality and quantity of our water supplies, and (iv) ensuring that new construction is built to minimize impact on the environment.

Id.

55. *Id.* § 2.

56. *See id.*

The Town of Irondequoit also adopted a general climate change law in 2007, when it adopted the recommendations of its Environmental Sustainability Task Force.[57] The town's comprehensive sustainability policy included the creation of an Environmental Sustainability Advisory Council and a series of initiatives designed to meet nine policy statements.[58]

B. Energy/Energy Star Laws

The Energy Star rating system was created in 1992 by the EPA.[59] Although it was originally intended to rate the efficiency of computers, it now covers all types of appliances and newly constructed buildings.[60] For buildings, the Energy Star system uses a 1 to 100 scale to rate buildings against national source energy data.[61] It has been adopted by some municipalities in an effort to establish energy efficiency standards for new buildings and substantial renovations. Improving buildings' energy efficiency can result in significant emissions reductions, which has helped to make the Energy Star program popular among climate change initiatives.

In New York, a number of municipalities have adopted local laws relating to energy efficiency in buildings, including Babylon,[62] Brookhaven,[63] Greenburgh,[64] Huntington,[65] North

57. *See* Irondequoit, New York, Environmental Sustainability Advisory Council, http://www.irondequoit.org/content/view/271/915/ (last visited Aug. 2, 2009) ("The Environmental Sustainability Advisory Council was created by statute in October 2007 when the Irondequoit Town Board adopted a comprehensive Energy and Environmental Policy.").

58. *See* IRONDEQUOIT ENVTL. SUSTAINABILITY TASK FORCE, FINAL REPORT 1 (2007), *available at* http://www.irondequoit.org/images/SupervisorColumns/etfadoptedrpt.pdf. The nine policy statements are: "Ensure Energy-Efficient and Environmentally-Supportive Town Codes, Plans, and Policies"; "Improve Energy Efficiency of Existing Town Buildings"; "Build Very Efficient New or Renovated Buildings"; "Create a Resource-Efficiency-Focused Employee Culture"; "Support the Reduction of Energy Use by Homeowners, Developers, and Landlords"; "Reduce Dependence on Traditionally-Powered Vehicles"; "Reduce Storm Water Runoff and Increase Storm Water Quality"; "Encourage Green Economic Development"; and "Include Green Practices in New Town Master Plan." *Id.*

59. Energy Star, History of Energy Star, http://www.energystar.gov/index.cfm?c=about.ab_history (last visited Aug. 1, 2009).

60. *See id.*

61. *See* Energy Star, How the Rating System Works, http://www.energystar.gov/index.cfm?c=evaluate_performance.pt_neprs_learn (last visited May 30, 2009).

62. *See* BABYLON, N.Y., CODE §§ 89-79 to -80 (2008), *available at* http://www.ecode360.com/?custId=BA0924.

63. *See* BROOKHAVEN, N.Y., CODE §§ 16-4.1 to -4.3 (2008), *available at* http://www.ecode360.com/?custId=BR0012.

Haven,[66] North Hempstead,[67] Oyster Bay,[68] Riverhead,[69] and Southampton.[70] These local governments have all joined the LIPA Energy Star Homes program and incorporated Energy Star requirements into their building codes.[71] Although the LIPA Energy Star Homes program is generally targeted at providing incentives for builders,[72] Long Island municipalities that have enacted Energy Star requirements have also been eligible for $25,000 incentive grants.[73]

1. Federal Preemption and Energy Codes

Municipalities must be mindful, however, of the intergovernmental dynamics of regulating energy efficiency standards. The issue of preemption, or conflict with state and federal statutes and regulations, has already started to surface in litigation. 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.[74] In October 2008 a federal district court issued a preliminary injunction barring enforcement 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 grounds

64. *See* GREENBURGH, N.Y., CODE § 100-15 (2008), *available at* http://www.ecode360.com/?custId=GR0237.

65. *See* HUNTINGTON, N.Y., CODE § 87-55.2 (2008), *available at* http://www.ecode360.com/?custId=HU0566.

66. *See* NORTH HAVEN, N.Y., CODE § 55-4(K)(1) (2008), *available at* http://www.ecode360.com/?custId=NO1009.

67. *See* NORTH HEMPSTEAD, N.Y., CODE §§ 2-77 to -81 (2008), *available at* http://www.ecode360.com/?custId=NO0081.

68. *See* OYSTER BAY, N.Y., CODE § 93-27.1 (2009), *available at* http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50615&infobase=oyster.nfo&softpage=Browse_Frame_Pg42.

69. *See* RIVERHEAD, N.Y., CODE § 52-21 (2008), *available at* http://www.ecode360.com/?custId=RI0508.

70. *See* SOUTHAMPTON, N.Y., CODE § 123-37 (2008), *available at* http://www.ecode360.com/?custId=SO0286.

71. *See* Press Release, Long Island Power Auth., LIPA Lauds Brookhaven's Move to Require E-Star Homes (June 28, 2006), http://www.lipower.org/newscenter/pr/2006/062806_brookhaven.html (explaining that LIPA gave municipalities $25,000 grants to adopt Energy Star standards).

72. Long Island Power Auth., NY Energy Star Homes Builders/Raters, http://www.lipower.org/efficiency/nyesh_builder.html (last visited May 21, 2009).

73. Press Release, Long Island Power Auth., *supra* note 72.

74. Air Conditioning, Heating and Refrigeration Inst. v. City of Albuquerque, Civ. No. 08-633 MV/RLP, 2008 U.S. Dist. LEXIS 106706 (D.N.M. Oct. 3, 2008).

that it was preempted by federal law.[75] Among other things, the green building code called for a thirty percent increase in energy efficiency for new commercial and residential buildings, as well as for those undergoing substantial renovations.[76] To achieve this goal, the code provided that single-family homes should have more insulation, and more efficient heating, cooling, ventilating, water heating, and lighting.[77] Additionally, commercial and residential structures would also have to undergo thermal bypass inspections.[78] The Judge wrote that

> [t]he 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.[79]

The Judge noted, however, that if other provisions of the green code were not affected by the dispute, the parties could submit an order for consideration to narrow the scope of the preliminary injunction.[80]

2. State Preemption

At the state level, in New York, local governments must comply with the statewide building code,[81] which provides for "a basic minimum level of protection to all people of the state from hazards of fire and inadequate building construction."[82] New York Executive Law Section 379(3) states that "no municipality shall have the power to supersede, void, repeal or make more or less restrictive any provisions of this article or of rules

75. *Id.* at *36–38.
76. *Id.* at *6–7.
77. City of Albuquerque, Green Building, http://www.cabq.gov/albuquerque green/green-goals/green-building/green-building-page (last visited May 21, 2009).
78. *Id.*
79. *Air Conditioning, Heating and Refrigeration Inst.*, 2008 U.S. Dist. LEXIS 106706, at *37.
80. *Id.* at 38.
81. N.Y. EXEC. LAW § 381(2) (McKinney 2008).
82. *Id.* § 371(2).

or regulations made pursuant hereto."[83] For example, the City of Ithaca's ordinance requiring the installation of smoke or heat detectors on buildings built before 1984 (the enactment date of the statewide building code) was found to be in direct conflict with the state law, which only allowed provisions to be applied retroactively from 1984 if the state legislature provided financial assistance.[84] However, New York Executive Law Section 379(1) permits any local government to "duly enact or adopt local laws or ordinances imposing higher or more restrictive standards for construction within the jurisdiction"[85] if the proper procedure is followed.

Under Section 379(1), within thirty days of enacting or adopting such a local law, the chief executive officer or the chair of the legislative body of the local government must notify the State Fire Prevention and Building Code Council ("Code Council") and must petition the Code Council "for a determination of whether such local laws or ordinances are more stringent than the standards for construction applicable generally to such local government in the uniform code."[86] If the Code Council "finds that such higher or more restrictive standards are reasonably necessary . . . and that such standards conform with accepted engineering and fire prevention practices and the purposes of" the Executive Law, the Code Council shall adopt the standards.[87] However, it will reserve the "power to limit the term or duration of such standards, impose conditions in connection with the adoption thereof," and terminate the standards at a time and in a manner the Code Council may deem "necessary, desirable or proper."[88]

C. Green Building Laws

Buildings account for nearly 40 percent of the energy used in the United States,[89] and for this reason, enacting green building codes has been viewed as one of the most effective climate change strategies available to local governments. Unlike

83. *Id.* § 379(3).

84. Rabinor v. City of Ithaca Bldg. Code Bd. of Appeals, 682 N.Y.S.2d 704, 705–06 (N.Y. App. Div. 1998).

85. N.Y. EXEC. LAW § 379(1) (McKinney 2008).

86. *Id.*

87. *Id.* § 379(2).

88. *Id.*

89. U.S. Green Bldg. Council, Green Building Research, http://www.usgbc.org/DisplayPage.aspx?CMSPageID= 1718 (last visited May 21, 2009).

Energy Star, which is limited to energy usage and efficiency measures, green building regulations typically include provisions related to site design, water efficiency and conservation, and indoor air quality, among other things.[90] These sustainable building techniques can help to cut down on emissions even more than the Energy Star system by incorporating energy efficiency measures into building designs and construction techniques. They emphasize, for example, the selection of sites located in walkable areas, which cuts down on emissions associated with vehicle trips and protects undeveloped areas that act as carbon sinks.[91] In addition, they recommend the use of local construction materials, which reduces the emissions associated with their transportation.[92]

The most popular rating system, the Leadership in Energy and Environmental Design ("LEED") Green Building Rating System, was developed by the nonprofit U.S. Green Building Council ("USGBC") and provides third-party certification standards that have been incorporated into many green building laws.[93] The LEED system provides a menu of sustainability options, each with a designated number of points, and the total number of points achieved by a project determines whether it will be LEED certified.[94] The LEED platinum standard is the highest possible rating, followed by gold, silver, and certified.[95]

In March 2008, Governor Paterson continued Executive Orders 111 and 142 directing state agencies and authorities to be more energy efficient and environmentally aware and to diversify their energy use by including biofuels.[96] Although NYSERDA has announced that it will provide additional funding under the New Construction Program,[97] which has pro-

90. *See* Peter C. D'Antonio, *Energy Star and LEED: Which is Right for You?*, CONTRACTINGBUSINESS.COM, Mar. 22, 2005, http://contractingbusiness.com/feature/cb_imp_6605/.

91. *See* U.S. GREEN BLDG. COUNCIL, LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS 2–3 (2008), *available at* http://www.usgbc.org/ShowFile.aspx?DocumentID=5546 (SS Credit 2; SS Credit 3).

92. *See id.* at 53 (MR Credit 5).

93. *See* U.S. Green Bldg. Council, LEED Rating Systems, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222 (last visited May 21, 2009).

94. *See* U.S. Green Bldg. Council, How to Achieve Certification, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1991 (last visited Aug. 2, 2009).

95. *Id.*

96. N.Y. Exec. Order No. 111 (June 10, 2001), *available at* http://www.nyserda.org/programs/exorder111orig.asp.

97. N.Y. State Energy Research & Dev. Auth., New Construction Program, http://www.nyserda.org/programs/New_Construction/default.asp (last visited May 21, 2009).

vided some funding for municipal-sponsored programs in the past,[98] the state has not adopted any specific policies or goals to encourage the adoption of local green building laws. Despite this, in line with the national trend,[99] local governments across New York have started to enact laws relating to green building development. Some green building ordinances apply only to municipal construction or renovation projects,[100] some apply to private projects that receive public funding,[101] and a few apply to both public and private construction/renovation projects.[102] The ordinances also differ in their exact requirements, for example, whether actual certification by the United States Green Building Council ("USGBC") is necessary, which level of LEED criteria must be sought, or whether waivers are available. The following discussion highlights some of these recently passed laws.

Erie County enacted a green buildings law in 2007 that requires major county construction and renovation projects to meet at least the LEED silver rating.[103] Rockland County also enacted a municipal green building law in 2008.[104] The Rockland County law requires county projects costing more than one million dollars to comply with the LEED silver criteria and to actually seek formal certification.[105] (It is not clear, however, what the consequences of failing to achieve certification

98. N.Y. State Energy Research & Dev. Auth., New Construction Program: Case Studies, http://www.nyserda.org/programs/New_Construction/casestudies.asp#Municipal (last visited Aug. 1, 2009).

99. *See generally* U.S. Green Bldg. Council, LEED Initiatives in Governments and Schools, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852 (last visited Aug. 1, 2009).

100. *See, e.g.*, EAST AURORA, N.Y., CODE §§ 108-11 to -13 (2008), *available at* http://www.ecode360.com/?custId=EA0398; Erie County, N.Y., Local Law No. 6, § 3 (2007), *available at* http://www.erie.gov/legislature/pdf/LL_NO6-2007.pdf; RIVERHEAD, N.Y., CODE §§ 52-22 to -27 (2008), *available at* http://www.ecode360.com/?custId=RI0508; ROCKLAND COUNTY, N.Y., CODE §§ 220-4 to -8 (2008), *available at* http://www.ecode360.com/?custId=RO1021.

101. *See, e.g.*, NASSAU COUNTY, N.Y., ADMIN. CODE tit. 66 (2008), *available at* http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50640&infobase=na2789.nfo&softpage=Browse_Frame_Pg42; N.Y., N.Y., CHARTER ch. 9, § 224.1 (2005), *available at* http://24.97.137.100/nyc/charter/entered.htm.

102. *See, e.g.*, BABYLON, N.Y., CODE §§ 89-83 to -87 (2008), *available at* http://www.ecode360.com/?custId=BA0924.

103. Erie County, N.Y., Local Law No. 6, § 3 (2007), *available at* http://www.erie.gov/legislature/pdf/LL_NO6-2007.pdf.

104. ROCKLAND COUNTY, N.Y., CODE §§ 220-4 to -8 (2008), *available at* http://www.ecode360.com/?custId=RO1021.

105. ROCKLAND COUNTY, N.Y., CODE §§ 220-6 to -7 (2008), *available at* http://www.ecode360.com/?custId=RO1021.

are.) Waivers are available under the law if the county executive determines that "the benefits of waiving this article's requirements outweigh the environmental benefits to the residents of Rockland County."[106] The Village of East Aurora[107] and the Town of Riverhead[108] have enacted similar municipal green building laws.

Enacted in 2005, New York City's green building law requires municipal projects costing more than two million dollars to be designed to meet LEED silver criteria, although actual certification is unnecessary.[109] In addition to city projects, the LEED requirements apply to private developments that receive more than 50 percent city funding or more than ten million dollars of city money.[110] Nassau County's 2007 green building requirements, like New York City's requirements, apply to publicly funded projects as well as to public works construction and renovation projects.[111] The law generally mandates compliance with the requirements for the LEED silver rating, but actual certification is not required, and exemptions can be granted on a number of financial grounds.[112] Ulster County requires high performance green building standards for county projects through a requirement that buildings comply with LEED Silver unless it is not financially possible.[113]

The Town of Babylon, in addition to passing Energy Star requirements, enacted a green building law in 2006.[114] The law 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.[115] While the law does not require

106. *Id.* § 220-8.

107. EAST AURORA, N.Y., CODE §§ 108-11 to -13 (2008), *available at* http://www.ecode360.com/?custId=EA0398.

108. RIVERHEAD, N.Y., CODE §§ 52-22 to -27 (2008), *available at* http://www.ecode360.com/?custId=RI0508.

109. N.Y., N.Y., CHARTER ch. 9, § 224.1 (2005), *available at* http://24.97.137.100/nyc/charter/entered.htm.

110. *Id.* § 224.1(g).

111. NASSAU COUNTY, N.Y., ADMIN. CODE tit. 66, §§ 3–4 (2008), *available at* http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50640&infobase=na2789.nfo&softpage=Browse_Frame_Pg42 (not covering projects smaller than 5,000 square feet).

112. *Id.* § 6.

113. Ulster County, N.Y., Res. No. 393 (Nov. 8, 2006), *available at* http://www.co.ulster.ny.us/resolution-archives/2006/383-06.pdf.

114. *See* BABYLON, N.Y., CODE §§ 89-83 to -87 (2008), *available at* http://www.ecode360.com/?custId=BA0924.

115. *Id.* § 89-86(A).

buildings to actually achieve LEED certification, it does require a project checklist to demonstrate that it is LEED-certifiable before a building permit can be issued.[116] 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.[117]

Finally, although Peekskill has not enacted a comprehensive green building law, a 2008 law grants density incentives to hotels and motels that meet LEED standards.[118] Actual certification is not required, but applicants must submit proof that the project has been registered for LEED certification[119] and proof that they have applied for certification.[120]

D. Green Procurement Laws

In April 2008, Governor Paterson issued an Executive Order establishing a green procurement and agency sustainability program.[121] Also referred to as environmentally preferable purchasing[122] or sustainable procurement,[123] this type of initiative encourages the purchase of products and services that have a reduced negative impact on the environment.[124] The green procurement rules will result in the purchase of more energy efficient appliances and machinery, and they will also help to establish a broader market for sustainable products.[125]

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116. *Id.* § 89-86(C); *see also* Simi Hoque, *LEED Certifi-able vs. LEED Certified*, GREENERBUILDINGS, Mar. 11, 2008, http://www.greenerbuildings.com/blog/2008/03/11/leed-certifi-able-vs-leed-certified (providing commentary on the difference between "LEED certified" and "LEED certifiable").

117. BABYLON, N.Y., CODE § 89-86(B) (2008), *available at* http://www.ecode360.com/?custId=BA0924.

118. PEEKSKILL, N.Y., CODE § 575-38 (2008), *available at* http://www.ecode360.com/?custId=PE0161.

119. *See* U.S. Green Bldg. Council, Registration, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=65 (last visited July 31, 2009).

120. PEEKSKILL, N.Y., CODE § 575-38 (2008), *available at* http://www.ecode360.com/?custId=PE0161.

121. N.Y. Exec. Order No. 4 (Apr. 25, 2008), *available at* http://www.ogs.state.ny.us/EO4/pdf/FinalGreenProcurementEO.pdf.

122. *See* U.S. Envtl. Prot. Agency, Environmentally Preferable Purchasing (EPP), http://www.epa.gov/epp/ (last visited July 31, 2009).

123. *See* United Nations Global Marketplace, What is Sustainable Procurement?, http://www.ungm.org/SustainableProcurement/ (last visited July 31, 2009).

124. *See generally* Greenbiz.com, Green Procurement, http://www.greenbiz.com/resources/resource/green-procurement (last visited July 31, 2009).

125. *See* Danny Bradbury, *Big Apple Expands Green Procurement Programme*, BUSINESSGREEN.COM, Dec. 16, 2008, http://www.businessgreen.com/business-green/news/2232676/big-apple-expands-green.

Green procurement laws at the local level require municipalities to incorporate environmental factors into their purchasing decisions. Erie County's 2007 Energy Efficient Products Act, which requires the county to purchase Energy Star rated products when available, is an example of a green procurement law.[126] Under the law, county agencies must include Energy Star preferences in procurement bid specifications, and they may only refuse to purchase Energy Star products when "the agency can demonstrate, in writing, that the interests of the County would be better served by procuring non-Energy Star rated equipment."[127] Nassau County enacted a similar law in 2008, although its green procurement guidelines are not based on the Energy Star rating system.[128] Under the Nassau County law, the office of purchasing is directed to establish green purchasing standards for a variety of things, including office supplies and equipment, cleaning supplies, food, landscaping and construction materials, parks and recreation supplies, vehicles, and transportation supplies.[129] The purchasing criteria are to be established, in part, by reference to green purchasing guides produced by the EPA and other environmental advocacy groups and after consultation with a committee made up of representatives of relevant county departments and local environmental groups.[130]

E. Solar

Municipal laws relating to solar energy have been in place for years in sunny states like California, Arizona, and Florida.[131] As solar panels have become more commonplace in less ideal climates,[132] solar ordinances have also been enacted in

126. Erie County, N.Y., Local Law No. 5, § 3 (2007), *available at* http://www.erie.gov/legislature/pdf/LL_NO5-2007.pdf.

127. *Id.*

128. NASSAU COUNTY, N.Y., ADMIN. CODE ch. 7, § 7-4.0 (2008), *available at* http://gcp.esub.net/cgi-bin/om_isapi.dll?clientID=50836&infobase=na2789.nfo&softpage=Browse_Frame_Pg42.

129. *Id.*

130. *Id.*

131. *See generally* Edna Sussman, *Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy*, 16 N.Y.U. ENVTL. L.J. 1, 28–35 (2008) (discussing various types of solar regulations).

132. *See* Gregory Dicum, *Chasing Solar Power in the Northeast*, N.Y. TIMES, Jan. 4, 2007, http://www.nytimes.com/2007/01/04/garden/04sbox.html (explaining that incentives have helped to make solar systems more appealing to people in the Northeast); Reiner Gaertner, *Germany Embraces the Sun*, WIRED, July 9, 2001, http://www.wired.com/science/discoveries/news/2001/07/45056 (explaining that

communities in the northeast to ensure that solar energy systems are used appropriately. The solar ordinances recently 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,[133] the importance of local laws regulating renewable energy has increased substantially.

The Village of Briarcliff Manor enacted a local law in 2007 allowing solar energy collectors as permitted accessory uses in single-family residential districts, multi-family residential districts, and commercial districts.[134] Various provisions in the law regulate solar energy equipment to ensure that it is minimally visible from neighboring properties and public areas.[135] 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."[136] 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.[137] 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 an accessory use in all districts.[138] The law also requires so-

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Germany's experience with solar energy—and the economic boom that the country has seen since the enactment of its Renewable Energy Laws—have demonstrated that photovoltaics can be a viable energy source, even in cloudy climates); Solarbuzz, Solar Energy Growth, http://www.solarbuzz.com/StatsGrowth.htm (last visited Aug. 2, 2009) (explaining that the demand for solar energy systems has risen over the past twenty years due to "a) increasing efficiency of solar cells b) manufacturing technology improvements, and c) economies of scale").

133. Press Release, State of New York Public Service Commission, PSC Gives Green Light to Clean Energy (Feb. 12, 2009), *available at* http://www3.dps.state.ny.us/pscweb/WebFileRoom.nsf/ArticlesByCategory/2CF6704A17B63B6B8525755B005F929C/$File/pr09010.pdf?OpenElement.

134. BRIARCLIFF MANOR, N.Y., CODE § 220-9.1(C)–(D) (2008), *available at* http://www.ecode360.com/?custId=BR1701.

135. *Id.* § 220-9.1.

136. ALBANY, N.Y., CODE § 375-93(C)(2) (2008), *available at* http://www.ecode360.com/?custId=AL0934.

137. *Id.* § 375-93(C)(4), (E)(3).

138. ITHACA, N.Y., CODE § 270-219.1(A)–(B) (2008), *available at* http://www.ecode360.com/?custId=IT1944.

lar energy equipment to be installed by "qualified solar installers" and regulates the handling and disposal of solar storage batteries.[139]

F. Wind

New York State is fortunate to have considerable wind resources,[140] and wind-rich communities have seen a proliferation of wind turbine installations in recent years as the demand for clean, domestic energy sources has grown.[141] Windpower generation has a great potential to reduce reliance on GHG emitting fossil fuels,[142] but its use brings along a number of negative impacts. Wind energy facilities, for example, may raise visual concerns ranging from the destruction of scenic viewsheds to the shadow flicker effect caused by the spinning blades, and they may also be noisy.[143] Wind energy facilities require safety regulation, and access to the machinery must be restricted due to high voltages.[144] Moreover, turbine blades can cause ice throw, and occasional machinery failures can lead to fires, oil spills, and flying blades.[145] Wind energy facilities

139. *Id.* § 270-219.1(D)–(E).

140. *See, e.g.*, U.S. Dep't of Energy, Wind Powering America: Wind Resource Maps, http://www.windpoweringamerica.gov/wind_maps.asp (last visited July 31, 2009) (providing a wind resource map of the United States and links to maps for individual states); Wind Resource Explorer, The New York Wind Resource Explorer, http://windexplorer.awstruewind.com/NewYork/NewYork.htm (last visited July 31, 2009) (providing wind resource maps of New York).

141. *See generally* Salkin & Ostrow, *supra* note 14 (discussing the benefits of wind energy); N.Y. STATE ENERGY RESEARCH & DEV. AUTH., WIND ENERGY PROJECT DEVELOPMENT IN NEW YORK 4–7 (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/11_windenergydevNewYork.pdf (explaining why wind energy is particularly appropriate in New York State).

142. *See generally* American Wind Energy Ass'n, Wind Energy and the Environment, http://awea.org/faq/wwt_environment.html (last visited Aug. 2, 2009) (describing the environmental benefits of wind power and explaining that "using wind instead of coal reduces CO_2 emissions by 99%, [and] using wind instead of gas by 98%").

143. *See* N.Y. STATE ENERGY RESEARCH & DEV. AUTH., OTHER POTENTIAL ENVIRONMENTAL IMPACTS 5–11 (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/5_otherpotenviroimpactsrevised.pdf [hereinafter OTHER POTENTIAL ENVIRONMENTAL IMPACTS].

144. *See* Simone Kaiser & Michael Fröhlingsdorf, *The Dangers of Wind Power*, BUSINESSWEEK, Aug. 24, 2007, *available at* http://www.businessweek.com/globalbiz/content/aug2007/gb20070824_562452.htm; N.Y. STATE ENERGY RESEARCH & DEV. AUTH., FREQUENTLY ASKED QUESTIONS FOR LARGE-SCALE WIND ENERGY PROJECTS 10–11 (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/23_frequentlyaskedquestions.pdf [hereinafter FREQUENTLY ASKED QUESTIONS].

145. *See* FREQUENTLY ASKED QUESTIONS, *supra* note 145, at 10–11.

may have negative environmental impacts as well, such as interfering with wildlife including birds and bats.[146] Additionally, the construction of wind farms, which often entails heavy traffic, significant road repairs, and infrastructure improvements, can cause major impacts on host communities.[147]

For these reasons, municipalities that have wind potential have increasingly begun to enact regulations governing the siting, construction, operation, and decommissioning of wind turbines. New York is fortunate to be rich in wind resources, and in 2008 the State's Renewable Energy Task Force recommended that "the state commit to realizing the potential of wind energy by," among other things, "addressing local siting and permitting issues."[148] Unlike some states that have preempted local control of wind turbine siting through state-level siting boards that can provide consistency in decision making,[149] wind development in New York State is subject entirely to local land use regulation.[150] The recent report issued by NYSBA's Task Force on Global Warming recommended that New York resurrect its state power siting law to address, among other issues, wind.[151] This action would recognize that wind, as a source of renewable energy, is a matter of statewide concern.

In the absence of state-level regulation, however, local ordinances designed to control wind turbine development have

146. *See generally* N.Y. STATE ENERGY RESEARCH AND DEV. AUTH., BIRDS AND BATS: POTENTIAL IMPACTS AND SURVEY TECHNIQUES (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/4_birdsbatsrevised.pdf; U.S. GOV'T ACCOUNTABILITY OFFICE, GAO REPORT NO. 05-906, WIND POWER: IMPACTS ON WILDLIFE AND GOVERNMENT RESPONSIBILITIES FOR REGULATING DEVELOPMENT AND PROTECTING WILDLIFE (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/gaowind.pdf.

147. *See* OTHER POTENTIAL ENVIRONMENTAL IMPACTS, *supra* note 144, at 17; *see generally* MATTHEW BROWER, N.Y. STATE ENERGY RESEARCH & DEV. AUTH., AGRICULTURAL IMPACTS RESULTING FROM WIND FARM CONSTRUCTION (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/7_visualimpactupfront.pdf (including pictures that show the effects of wind turbine construction on roads, soils, and vegetation).

148. RENEWABLE ENERGY TASK FORCE, CLEAN, SECURE ENERGY AND ECONOMIC GROWTH: A COMMITMENT TO RENEWABLE ENERGY AND ENHANCED ENERGY INDEPENDENCE: THE FIRST REPORT OF THE RENEWABLE ENERGY TASK FORCE TO LIEUTENANT GOVERNOR DAVID A. PATERSON 15 (2008), *available at* http://www.ny.gov/governor/press/lt_RETF_Report.pdf.

149. *See* Salkin & Ostrow, *supra* note 14 (describing various state-local siting regimes for wind turbines).

150. *See* U.S. FISH & WILDLIFE SERV., WIND POWER SITING, INCENTIVES, AND WILDLIFE GUIDELINES IN THE UNITED STATES 83 (2007), *available at* http://www.fishwildlife.org/Science_research/AFWA%20Wind%20Power%20Final%20Report.pdf.

151. TAKING ACTION IN NEW YORK, *supra* note 22, at 47.

proliferated in New York State. Generally, wind turbines may be specifically permitted in some districts and prohibited from others, or they may be allowed only in wind energy overlay zones.[152] Some type of special permit is typically required, often in conjunction with site design and environmental review.[153] Wind ordinances may include separate provisions for building-mounted turbines,[154] turbines intended to generate energy primarily for on-site use,[155] and larger wind energy facilities intended to supply energy to the grid.[156]

Local wind laws in New York impose varying height restrictions on wind towers. Some of the height regulations imposed on turbines are maximum values, intended to protect viewsheds and other visual aspects of the landscape.[157] The Town of Bethany, for example, encourages small turbines as "a cost effective mechanism for reducing on-site electric costs," but it does not support large wind facilities, as these would negatively impact viewsheds and possibly lower property values.[158] Accordingly, Bethany's 2008 wind law limits the height of turbines to 80 feet if located on parcels smaller than five acres, and to 150 feet on larger parcels.[159] In contrast, the Town of

152. DANIELS, *supra* note 14, at 3.

153. *Id.*

154. *See, e.g.*, ITHACA, N.Y., CODE § 270-219.4(E) (2008), *available at* http://www.ecode360.com/?custId=IT1944.

155. *See, e.g.*, *id.* § 270-219.4 (permitting wind turbines as accessory uses); South Bristol, N.Y., Local Law No. 2, § 170-9 (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf (defining residential windmills as those used to provide on-site electricity to a dwelling, and defining commercial windmills as those used to provide on-site electricity to commercial enterprises).

156. *See, e.g.*, Cohocton, N.Y., Windmill Local Law (Jan. 6, 2006), *available at* http://www.gflrpe.org/programareas/wind/LL/CohoctonWindmillLaw.pdf (restricting large wind facilities to the agricultural-residential district); South Bristol, N.Y., Local Law No. 2, § 170-42 (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf (prohibiting industrial windmills). The Town of Bethany specifically prohibits large wind energy facilities, but it provides that if its regulations are invalidated, such turbines will nevertheless be subject to special permit review, performance bond requirements, increased setbacks, and the completion of a Host Community Benefits Agreement. BETHANY, N.Y., ZONING, LAND SEPARATION AND SUBDIVISION LAW art. VI, § 613(K) (2008), *available at* http://www.townofbethany.com/pdfs/Article%20VI.pdf.

157. *See* GOV'T LAW CENTER, ALBANY LAW SCHOOL, PLANNING AND ZONING FOR WIND POWER IN NEW YORK 4 (2005), *available at* http://www.governmentlaw.org/files/ZLPR-Planning_Zoning_windpower.pdf.

158. Bethany, N.Y., Local Law No. 1, § IV(A)(2) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf.

159. Bethany, N.Y., Local Law No. 1, § V, art. III (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf.

Cohocton, which permits utility-scale wind energy generation facilities, sets the maximum height at 500 feet.[160]

For safety reasons, wind ordinances also often specify the lowest minimum distance permitted between the ground and the tips of the blades.[161] In Ithaca, for example, the lowest part of the turbine blade must pass no closer to the ground than 30 feet, and for building mounted turbines, Ithaca requires the blades to be at least 15 feet above any "outdoor surfaces intended for human occupancy . . . that are located directly below the facility."[162] The Town of Eden's 2004 wind ordinance takes a slightly different approach and measures the 30-foot minimum turbine blade height from the highest existing structure or tree within a 250-foot radius.[163]

Setback requirements are another regulation commonly found in wind laws, and they serve to mitigate aesthetic impacts as well as to protect adjacent property from turbine dangers such as ice throws and collapses.[164] Most local wind laws require wind turbines to be set back from residences, power lines, public roads, and property lines.[165] Setbacks may be measured as a specific distance, or they may be calculated using a formula based on the turbine's height. In Cohocton, for example, the setback for a non-industrial turbine from property lines and roads is equal to one and one-half times its height.[166] Industrial turbines must be setback a distance equal to their height plus 100 feet from property lines, roads, and power lines, and they must also be at least 1,500 feet removed from any residences or areas normally used by the public.[167] The

160. Cohocton, N.Y., Windmill Local Law (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf.

161. *See, e.g.*, DANIELS, *supra* note 14, at 5.

162. ITHACA, N.Y., CODE § 270-219.4(C)(4) (2008), *available at* http://www.ecode360.com/?custId=IT1944.

163. EDEN, N.Y., CODE § 217-4(C)(11) (2008), *available at* http://www.ecode360.com/?custId=ED1729.

164. DANIELS, *supra* note 14, at 9; N.Y. STATE ENERGY RESEARCH & DEV. AUTH., ASSESSING AND MITIGATING VISUAL IMPACTS (2005), *available at* http://www.powernaturally.org/Programs/Wind/toolkit/6_visualimpactupfront.pdf; DAVID WAHL & PHILIPPE GIGUERE, GE ENERGY, ICE SHEDDING AND ICE THROW: RISK AND MITIGATION (2006), *available at* http://www.gepower.com/prod_serv/products/tech_docs/en/downloads/ger4262.pdf.

165. DANIELS, *supra* note 14, at 4.

166. Cohocton, N.Y., Windmill Local Law § I(B)(1) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf.

167. Cohocton, N.Y., Windmill Local Law § II(B)(6) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf.

Town of South Bristol uses a setback formula based on the estimated ice or blade throw distance.[168]

Height restrictions and setbacks are only two of the ways in which local governments have attempted to mitigate the visual impacts of wind turbines. Many wind ordinances require the completion of a visual impact assessment as part of the permitting process.[169] In Cohocton, the visual impact analysis must address impacts within a five mile radius, and applicants may be required to submit scenic resource maps, viewshed maps, photographic simulations, and suggested visual mitigation strategies.[170] Other common provisions require turbines and blades to be painted in neutral, non-reflective colors,[171] and many wind ordinances prohibit wind facilities from displaying advertisements.[172] Lighting is generally limited to that required by the Federal Aviation Administration,[173] and

168. South Bristol, N.Y., Local Law No. 2, §§ 170-40(B)(1), -41(B)(1) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf.

169. Bethany, N.Y., Local Law No. 1, § V, art. VI(C)(8), (D)(6)–(7) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf; LACKAWANNA, N.Y., CODE § 230-85(A)(1)(c) (2008), *available at* http://www.e-codes.generalcode.com/codebook_frameset.asp?lg=1&t=ws&cb=1978_A; South Bristol, N.Y., Local Law No. 2, §§ 170-40(B)(1), -41(B)(1) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(3)(a)(2), (3) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

170. Cohocton, N.Y., Windmill Local Law § II(B)(1) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf.

171. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(6) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf ("The system's tower and blades shall be painted a non-reflective unobtrusive color . . . ."); ITHACA, N.Y., CODE § 270-219.4(F)(2) (2008), *available at* http://www.ecode360.com/?custId=IT1944 ("Small wind energy facilities shall be painted or finished with a nonreflective, unobtrusive color . . . ."); South Bristol, N.Y., Local Law No. 2, § 170-40(C)(3) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf (requiring battleship gray).

172. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(11) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf ("No brand names, logo or advertising shall be placed or painted on the tower, rotor, generator or tail vane where it would be visible from the ground, except that a system or tower's manufacturer's logo may be displayed on a system's generator housing in an unobtrusive manner."); ITHACA, N.Y., CODE § 270-219.4(F)(1) (2008), *available at* http://www.ecode360.com/?custId=IT1944 ("No small wind energy facilities shall be used for signage, promotional or advertising purposes . . . . Reasonable identification of the manufacturer or owner of the small wind energy facility is permitted.").

173. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(8) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf ("Exterior lighting on any structure associated with the system shall not be allowed except that which is specifically required by the Federal Avia-

transmission lines are typically required to be placed underground.[174] A few ordinances require wind turbine applicants to assess the "shadow flicker" effect.[175] In the Town of Bethany, for example, the shadow flicker[176] must be limited to less than thirty hours per year and thirty minutes per day.[177]

Aside from visual impacts, the noise that can be generated from spinning blades can cause concern. For this reason, local wind laws typically impose noise limits of about fifty decibels, measured from adjacent property lines.[178]

Safety provisions make up a large portion of many wind ordinances. Many wind ordinances require an engineer to certify that towers are designed according to appropriate standards,[179] and most require turbines to have braking systems

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tion Administration . . . ."); Cohocton, N.Y., Windmill Local Law (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWind millLaw.pdf; EDEN, N.Y., CODE § 217-4(C)(16) (2008), *available at* http://www.ecode360.com/?custId=ED1729 ("Lighting of the tower for aircraft and helicopters will conform with FAA standards for wattage and color, when required."); South Bristol, N.Y., Local Law No. 2, § 170-40(B)(6)(a) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(3)(f)(5) (2008), *available at* http://www.ecode360.com/?cu stId=WE1631 ("The permittee shall meet all FAA requirements for lighting.").

174. *See, e.g.*, Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(9) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEn ergyZoningAmendments.pdf (providing that all wiring is to be underground or on existing wires, except for tie-in lines and by permission of the town board for reasons relating to the terrain); ITHACA, N.Y., CODE § 270-219.4(D)(2) (2008), *available at* http://www.ecode360.com/?custId=IT1944 (requiring underground wires, except for wires going from the turbine to the base, and all wiring associated with building-mounted turbines); South Bristol, N.Y., Local Law No. 2, § 170-40(C)(9) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBris tol.pdf.

175. *See* OTHER POTENTIAL ENVIRONMENTAL IMPACTS, *supra* note 144, at 7.

176. The "shadow flicker effect" refers to the blinking shadows that may be caused by spinning turbine blades. *See generally* American Wind Energy Association, Wind Energy and the Environment, http://www.awea.org/faq/wwt_environ ment.html#Shadow%20Flicker (last visited Aug. 3, 2009).

177. Bethany, N.Y., Local Law No. 1, § V, art. VI(F) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmen dments.pdf.

178. *See, e.g.*, Bethany, N.Y., Local Law No. 1, § V, art. VI(G) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZon ingAmendments.pdf; Cohocton, N.Y., Windmill Local Law (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf; EDEN, N.Y., CODE § 217-4(C)(8) (2008), *available at* http://www.ecode360.com/?cust Id=ED1729; ITHACA, N.Y., CODE § 270-219.4(C)(5) (2008), *available at* http://www.ecode360.com/?custId=IT1944; WESTFIELD, N.Y., CODE § 185-43(J)(3)(d) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

179. *See, e.g.*, LACKAWANNA, N.Y., CODE § 230-85(C)(5) (2008), *available at* http://www.e-codes.generalcode.com/codebook_frameset.asp?lg=1&t=ws&cb=19 78_A.

that are automatic, manual, or both.[180] Municipalities typically require applicants to demonstrate that access to the turbines will be limited by fences, locked gates, high climbing pegs, or a combination of these measures.[181] Signs generally have to be posted to warn any passersby of high voltages and ice throws, although the number and placement of signs varies among local governments.[182] The Town of South Bristol's regulations, for instance, require warning signs to be posted at hundred-foot intervals along the setback lines, and they must include the text "CAUTION: FALLING OBJECTS."[183] In the Town of Bethany, warning signs must be located at a height of five feet (eye-level) on the base of any turbine.[184] Other local governments simply require "[a]ppropriate" warning signs.[185] Periodic turbine inspection and reporting requirements are also fairly

180. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(17) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoning Amendments.pdf (requiring "manual and automatic over-speed controls"); Cohocton, N.Y., Windmill Local Law § II(D)(2) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf (requiring automatic braking, governing or feathering system); EDEN, N.Y., CODE § 217-4(C)(5) (2008), *available at* http://www.ecode360.com/?custId=ED1729 (requiring "manual and automatic controls"); ITHACA, N.Y., CODE § 270-219.4(D)(3) (2008), *available at* http://www.ecode360.com/?custId=IT1944 (requiring braking system); South Bristol, N.Y., Local Law No. 2, § 170-40(D)(3) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(3)(f)(1), (3) (2008), *available at* http://www.ecode360.com/?custId=WE1631 (requiring braking and an emergency shutdown procedure).

181. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(12) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoning Amendments.pdf; Cohocton, N.Y., Windmill Local Law § I(D)(1) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf; EDEN, N.Y., CODE § 217-4 (C)(7) (2008), *available at* http://www.ecode360.com/?custId=ED1729; South Bristol, N.Y., Local Law No. 2, § 170-40(D)(2) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(3)(b) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

182. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(11) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoning Amendments.pdf (requiring a sign, no larger than one by two feet, to be "posted on the tower at a height of five (5) feet warning of" the risk of electric shock); EDEN, N.Y., CODE § 217-4 (C)(10) (2008), *available at* http://www.ecode360.com/?custId= ED1729 (requiring a sign to be "posted at the base of the tower warning of electrical shock or high voltage").

183. South Bristol, N.Y., Local Law No. 2, § 170-40(D)(1) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf.

184. Bethany, N.Y., Local Law No. 1, § V, art. VI(D)(11) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoning Amendments.pdf.

185. WESTFIELD, N.Y., CODE § 185-43(J)(3)(f)(4) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

common,[186] as are provisions requiring reports on such things as ice throw calculations, blade throw calculations, and "catastrophic tower failure."[187] And because none of these safety provisions are fail safe, most applicants are required to obtain liability insurance.[188]

Environmental considerations are another important feature of wind ordinances. In addition to completing review under the State Environmental Quality Review Act,[189] some ordinances require an assessment of the impacts that turbines will have on migratory or resident birds,[190] and others require the submission of certain information relating to storm water and erosion.[191] A few ordinances require applicants to post a surety to cover possible oil contamination.[192]

Many local wind laws also include a section on decommissioning that requires the applicant to submit a decommissioning plan and to post a performance bond.[193] Because the con-

186. Cohocton, N.Y., Windmill Local Law § I(F)(1) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(4) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

187. LACKAWANNA, N.Y., CODE § 230-85(A)(1)(j)-(l) (2008), *available at* http://www.e-codes.generalcode.com/codebook_frameset.asp?lg=1&t=ws&cb=1978_A.

188. Cohocton, N.Y., Windmill Local Law § I(F)(2) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf; EDEN, N.Y., CODE § 217-4(C)(15) (2008), *available at* http://www.ecode360.com/?custId=ED1729; South Bristol, N.Y., Local Law No. 2, § 170-40(F)(2) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/ TofSouthBristol.pdf; WESTFIELD, N.Y., CODE § 185-43(J)(3)(i) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

189. N.Y. ENVTL. CONSERV. LAW §§ 3-0301(1)(b), 3-0301(2)(m), 8-0113 (McKinney 2008); N.Y. COMP. CODES R. & REGS. tit. 6, ch. VI, pt. 617 (2009), *available at* http://government.westlaw.com/linkedslice/default.asp?SP=nycrr-1000 (disable browser pop-up blocker; then follow hyperlink for Title 6; then expand search tree under Chapter VI; then expand search tree under Part 617).

190. *See, e.g.*, Cohocton, N.Y., Windmill Local Law § I(C)(6) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf (requiring bird migration study only for industrial windmills).

191. *See, e.g.*, LACKAWANNA, N.Y., CODE § 230-85(B)(14) (2008), *available at* http://www.e-codes.generalcode.com/codebook_frameset.asp?lg=1&t=ws&cb=1978_A.

192. Cohocton, N.Y., Windmill Local Law § I(F)(6) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf; South Bristol, N.Y., Local Law No. 2, § 170-40(F)(6) (2003), *available at* http://www.gflrpc.org/programareas/wind/LL/TofSouthBristol.pdf.

193. Bethany, N.Y., Local Law No. 1, § V, art. VI(I)(1) (Jan. 14, 2008), *available at* http://www.townofbethany.com/other%20pdf%20files/WindEnergyZoningAmendments.pdf; EDEN, N.Y., CODE § 217-4(C)(18) (2008), *available at* http://www.ecode360.com/?custId=ED1729; WESTFIELD, N.Y., CODE § 185-43(J)(3)(j)(2) (2008), *available at* http://www.ecode360.com/?custId=WE1631.

struction of wind farms can result in vegetation clearance and road damage, many ordinances also require performance bonds to ensure that applicants restore any areas affected by construction.[194]

The Adirondack Park Agency is currently discussing a staff proposal that would allow for a streamlined and expedited process for the siting of small-scale residential and commercial wind turbines up to a height of 125 feet within the six-million acre park.[195] Among the requirements in the proposal are that the turbines blend in with the surroundings so as to be "substantially invisible" consistent with the Agency's policy on the siting of telecommunications towers.[196] The proposal also limits blade diameter to no more than twenty-five feet, and the tower(s) must be setback at least 150 feet from property line boundaries.[197] Permit applications must be consistent with the information contained in the application and be in conformance with the Agency's "Policy on Agency Review of Proposals for New Telecommunications Towers and Other Tall Structures in the Adirondack Park."[198] Turbine applications must also demonstrate that they will

> not have an undue adverse impact upon the natural, scenic, aesthetic, ecological, wildlife, historic, recreational or open space resources of the Park or upon the ability of the public to provide supporting facilities and services made necessary by the project, taking into account the economic and social benefits that might be derived therefrom.[199]

While local wind ordinances may help to safeguard public interests, New York State would benefit from state level siting guidelines or state control over the siting process. This would bring a measure of uniformity to wind development regulations

194. *See, e.g.*, Cohocton, N.Y., Windmill Local Law § I(F)(4) (Jan. 6, 2006), *available at* http://www.gflrpc.org/programareas/wind/LL/CohoctonWindmillLaw.pdf.

195. N.Y. STATE ADIRONDACK PARK AGENCY, IN THE MATTER OF THE ISSUANCE OF A GENERAL PERMIT FOR: INSTALLATION OF CERTAIN NEW SMALL-SCALE WIND TURBINES (2009), *available at* http://www.apa.state.ny.us/Mailing/0903/Regulatory/GP%202009G-1%20Permit%20for%20Small%20Scale%20Wind%20Turbines%203-3-09.pdf.

196. *Id.* (specifying that blending is to be accomplished with respect to "design, size, location, and color" of the turbine(s)).

197. *Id.* at 2.

198. *Id.* at 1.

199. *Id.* at 4.

and prevent local governments from imposing overly restrictive regulations on wind farms, or excluding them altogether.[200]

III. STATE ACTIONS NEEDED TO FURTHER ENCOURAGE AND ENHANCE MUNICIPAL OPPORTUNITIES

With the diversity of approaches and the growing level of activity at the local level highlighted in Part II, state lawmakers and policymakers are missing an opportunity by failing to do more to encourage activities at the local government level. With approximately 1,600 counties, cities, towns, and villages that are typically able to act quicker than the state (and for that matter federal) government, the initiatives discussed just begin to scratch the surface on the potential for collective quantifiable results. This Article reports on documented activities in less than 10 percent of New York's local governments. The opportunities for GHG reduction are great if the other 90 percent could be incentivized to develop and implement local climate change and energy efficiency strategies. Clearly, for New York to move forward in a consistent, coordinated, and meaningful manner, thoughtful state leadership on policies and programs developed in partnership with New York's local governments is a necessity. Municipalities have proven that they can quickly develop and adopt local laws, resolutions, and ordinances designed to test and implement GHG reduction goals. The pieces of New York's disjointed programs and policies at the state level could be strengthened with more focused attention on the critical role local governments can play in the overall state climate change strategy. The following recommendations offer a starting point for discussion and action items. They focus on: (a) creating a centralized clearinghouse for information relating to federal, state, and local sustainability initiatives; (b) creating a State Climate Change Officer position; (c) cataloguing state and local climate change laws; (d) establishing benchmarking programs to measure the success of different types of municipal sustainability programs; and (e) establishing a State-Local Climate Change Task Force to study and recommend best practices.

200. *See* Salkin & Ostrow, *supra* note 14 (arguing that local government control over the siting process is susceptible to being captured by NIMBY interests).

A. Centralized Clearinghouse or Climate Change Portal for Municipal Information

Recognizing the lack of a centralized repository of information for local governments on climate change and sustainability, Governor Paterson in his 2009 State of the State address announced that he would create a clearinghouse to provide information for schools, hospitals, and local governments with one-stop shopping for information on energy efficiency.[201] While the websites of a number of state agencies contain information about state-sponsored programs on climate change, energy efficiency, sustainable development, green procurement, and other related topics,[202] municipal officials must search through all of these sites to find funding opportunities, data, reports, and technical assistance. This is often confusing and inefficient.

New York needs a climate change portal for municipalities where there is quick, user-friendly access to available state information on climate change specifically tailored for localities. In addition to organizing the information currently available, New York's online technical assistance for local governments should also include advice and guidance on a range of topics that could provide the legal basis for swifter action at the municipal level. For example, guidance documents could discuss using home rule powers[203] to address climate change (and any barriers including areas of state preemption), using environmental review laws at the local level to address GHG emissions, and modernizing planning and zoning laws and local building codes to promote green initiatives. These suggestions illustrate just three areas where municipal officials may not fully appreciate the strength of their authority to adopt proactive local strategies for GHG reduction. Rather than 1,600

201. David A. Paterson, Governor of N.Y., State of the State Address: Our Time to Lead (Jan. 7, 2009), *available at* http://www.ny.gov/governor/keydocs/pdf/speech_0107091.pdf.

202. *See, e.g.*, Climate Smart Communities, *supra* note 39; Focus on Local Government, *supra* note 31; N.Y. State Dep't of Envtl. Conservation, Office of Climate Change: Developing a Portfolio of Solutions, http://www.dec.ny.gov/about/43166.html (last visited Aug. 2, 2009); N.Y. State Office of General Services, Executive Order 4: Establishing a State Green Procurement and Agency Sustainability Program, http://www.ogs.state.ny.us/Executive Order4.html (last visited Aug. 2, 2009).

203. Home rule is the power of local governments to control their own operations and pass laws governing their territories. *See* 1 SANDRA M. STEVENSON, ANTIEAU ON LOCAL GOVERNMENT LAW §§ 21.01–.05 (2d ed. 1999).

municipal attorneys each charging their clients for legal advice in this arena, well researched and simple legal memoranda from the state on topics such as those listed would both save precious local tax dollars and ensure more unified statewide approaches to addressing climate change at the local level.

B. Appoint a State Climate Change Officer

New York lacks one designated state-level point person who is publicly acknowledged as the statewide climate change officer (for example, a member of the Governor's staff or cabinet). It is possible that this designation is not politically feasible due to interagency turf issues. Specifically, several agencies within the executive branch may already believe that they are the "go to" place for climate change in the state. In the absence of a designation by the Governor of a state climate change officer in the Governor's Office with authority to truly coordinate, benchmark, and report on statewide climate change related activities, the Governor should appoint a state level official who could be designated as the Local Climate Change Officer to serve in a similar coordinating position with a focus solely on coordination at the local government from an intergovernmental perspective. Without such coordination, local governments may be uncertain as to whether to view the Department of Environmental Conservation Climate Change Office, with its Community Climate Change Pledge initiative, as the place to "go to" for "one-stop shopping," or whether they should go to the Department of State, where the State's Smart Growth Program and Building Code Program are housed, and where the State's Office of Local Government is housed. Further confusing the situation, municipalities may also wonder whether they should contact NYSERDA because a button on NYSERDA's website specifically promotes some of its local government initiatives. The options can continue with other state agencies that have programs that impact local climate change behaviors and policies. Someone needs to be responsible for taking a holistic approach to providing focused attention, assistance, and reporting for local climate change activities statewide.

C. Statewide or Regional Cataloguing of Local Laws

The local laws discussed in this Article are not found in any central database available to the public either for free or for a fee.[204] The Department of State (or another state agency or regional planning council) should be tasked with developing an online repository of local plans, resolutions, laws, regulations, and programs that are being adopted and implemented at a rapid pace across the state. This will save time and resources for local governments by allowing them to study the initiatives that have already been developed and make appropriate adjustments to meet the needs of the individual jurisdiction. Furthermore, the site host can post model local laws and other information of interest for municipalities to assist in the design of local legislative initiatives. This project should be part of the state-level portal discussed above. If such a portal is not created, it could be maintained as a separate initiative.

D. Benchmarking Successes at the Municipal Level

Local governments are good first responders to public policy crises, but they are typically not so diligent at critiquing the level of success of initiatives implemented months and years ago.[205] The state should promote an effort to develop local indicators of success for purposes of benchmarking the effectiveness of the plethora of locally adopted climate change initiatives. For example, data could be collected on how many green buildings are constructed under various ordinances, how many waivers are granted from green building laws, how often green procurements are made and the extent of longterm savings expected to result from them, and how popular other local sustainability incentives are. Through this effort, and working cooperatively with local governments and the nonprofit sector, best practices will emerge that can better inform new state and local policies and priorities. This is an example of one respon-

204. *See* Patricia Salkin, *Sunshine on Local Laws Still Needed in NYS*, TIMESUNION.COM, May 2, 2009, http://blog.timesunion.com/salkin/sunshine-on-local-laws-still-needed-throughout-new-york-state/10 (discussing the general lack of availability of local laws across New York State, and offering policy options for state, regional and local solutions to make these public laws more readily available).

205. In all fairness, it is staffing and resource issues that prevent municipalities from engaging in these critiques.

sibility that can be tasked to a statewide climate change action officer.

E. A State-Local Climate Change Task Force Should be Established

It is clear that a lot of activity is taking place at the state level, including numerous task forces and planning initiatives. Since these are state-level initiatives, the member representatives are overwhelmingly from state agencies. The Governor should establish a task force with state agency representatives and representatives of local governments to develop an action plan for an effective state-local partnership on climate change. If New York had a true comprehensive climate change action plan, this could be one element of that plan. Municipal government has long been lauded as a laboratory of innovation where ideas are developed and tested. Municipal officials can best inform the state about barriers experienced, the types of technical assistance that would be most helpful, and the desired strategic investments and incentives that would be most effective in ensuring comprehensive and coordinated local approaches to dealing with energy efficiency and other global warming issues. In addition, it is appropriate for this task force to examine options for expedited review processes for climate-friendly projects through potential amendments to the state planning and zoning enabling acts. This concept has been used across the country to promote "shovel-ready" sites to promote technology projects as well as economic development initiatives, and as discussed above, is even being considered in the Adirondack Park for small wind turbines.

CONCLUSION

To effectively combat climate change, New York (and many other states) will need to patch together a quilt of local plans, policies, laws, regulations, and programs. It is most appropriate for the state government to establish broad goals, develop financial incentives to implement effective programs, and remove state-level barriers to local actions. However, the reality is that to change the behavior of New Yorkers, who emit an average of eleven tons of carbon per year, local governments must take an active role though the exercise of their municipal police powers and other authority to develop and implement appro-

priate and immediate strategies for reduction of GHG emissions. Local governments, however, cannot accomplish this without state-level help in terms of fiscal, human, and information resources.