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Local Green Initiatives: What Local Governance Can Contribute to Environmental Defenses Against the Onslaughts of Climate Change

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LOCAL GREEN INITIATIVES: WHAT LOCAL GOVERNANCE CAN CONTRIBUTE TO ENVIRONMENTAL DEFENSES AGAINST THE ONSLAUGHTS OF CLIMATE CHANGE

Andrea McArdle*

As the evidence of climate change-induced extreme weather continues to mount, 1 policymakers at all levels of government, in the private sector, and civil society search for responses that can both mitigate the effects of climate change and develop mechanisms to adapt to changing weather systems and their accompanying risks. The impact of climate-change-related weather occurrences, from sea level rise, surges, and flooding, to heat waves, droughts, and rampaging fires, crosses geographic boundaries and jurisdictional lines. Unarguably this impact is global in scope. However, increasingly municipalities have become the first lines of defense in preparing for weather disasters. 2 These weather-related effects are salient in municipalities, which consume in excess of two-thirds of energy globally. 3 Recognizing structural limits that exist in relation to the authority of local governments, 4 municipalities do have governance capacity, measured in part by actual institutional practices and

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^{1.} Climate Change 2014 Synthesis Report Summary for Policymakers, 6-8 (2014).

^{2.} Cynthia Rosenzweig, Cities as First Responders to Climate Change: A First Look at the Second Assessment Report (ARC3-2) of the Urban Climate Change Research Network (Cynthia Rosenweig et al. eds., 2015).

^{3.} Jen Kinney, *Designing Buildings to Protect Urban Residents*, NEXT CITY (May 11, 2016), https://nextcity.org/daily/entry/world-resources-institute-planenergy-efficient-cities-resilient-cities [https://perma.cc/2JCD-9DEJ].

^{4.} Local Government Authority, NATIONAL LEAGUE OF CITIES, http://www.nlc.org/build-skills-and-networks/resources/cities-101/city-powers/local-government-authority [https://perma.cc/83ES-JWT2].

understandings,⁵ to reduce their carbon footprint and adapt to increasing levels of climate risk.

Governance at the local level implicates a range of potential responses to changing climatic conditions. Local governments typically regulate and set policy for local land use.⁶ Drawing power from state enabling statutes or state constitutional home rule provisions, ⁷ local governments generally exercise some combination of regulatory, revenue-raising, and eminent domain powers that can steer land-use policy toward addressing weather-related risks. Additionally, municipalities exercise considerable actual responsibility over public health (which includes environmental health and safety), and for the infrastructure that welds together multiple systems (transportation, emergency response, public safety, energy consumption, waste management, water consumption, and wastewater management) that manage and protect local populations. 8 Municipal governing structures also have a highly developed knowledge base about local conditions and the needs of vulnerable populations.⁹

This article considers the legal landscape of local green governance addressed to the effects of climate change. Surveying that landscape, the article discusses governance mechanisms that municipalities are using to adopt and enforce green development standards particularly related to reducing greenhouse gas emissions. The article takes a broad view of governance; for this discussion it includes legislation; executive agency action; local government participation in litigation directed toward achieving, or upholding, a regulatory standard; local government collaboration with non-governmental partners to achieve desired legal and policy change; and municipal membership in transjurisdictional (including transnational) networks that develop

7. Daniel R. Mandelker et al., State and Local Government in a Federal System, 119-20, 133-34 (7th ed. 2010).

^{5.} Richard Briffault, *Our Localism: Part I—The Structure Of Local Government Law*, 90 COLUM. L. REV, 1, 12-16, 112-14 (1990) [hereinafter *Our Localism*] (arguing, in practice, local governments exercise considerable regulatory authority notwithstanding formal legal limits on the authority of local governments).

^{6.} Id. at 57-59.

^{8.} See Briffault, Our Localism, supra note 5, at 15.

^{9.} ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, MEASURING LOCAL DISCRETIONARY AUTHORITY M-131; AN INFORMATION REPORT 9 (1981).

standards to reduce greenhouse gas emissions and achieve climate resilience.

Relatedly, the article addresses the extent to which other levels of government and nongovernmental systems are implicated in these local governance mechanisms, to mandate or limit local action, or to work in collaboration with it. The article argues that because local green governance is driven by the urgent need to mitigate as well as adapt to the effects of climate change in the context of local conditions, local green initiatives critically contribute to the broader set of responses needed to reduce society's carbon footprint and the damaging effects of greenhouse gas emissions. For this reason, localities should be given broad latitude to act, to ensure sufficient flexibility and scope for responding to the climate-induced risks they face.

Part One considers a variety of municipal approaches to green governance, with a focus on measures to achieve energy efficiency in design and construction processes, and the role of third-party standards, for example, Leadership in Energy and Environmental Design (LEED), as green reference points within these measures.¹⁰ Specifically, this Part discusses illustrative local measures that, to various degrees, incorporate private third-party ratings systems to measure compliance with energy-efficient and resilient standards in local building, zoning, and energy codes, and addresses the legal implications of that practice. Part Two addresses the interplay between state and local green regulation, against the backdrop of states' allocation of regulatory power to local governments through home rule provisions and statutory sources of local authority. To analyze the impact of a state regulatory scheme on local green governance, this Part focuses attention on two statewide systems, the CalGreenCode and local measures adopted within the state of California, 11 and the structure of Oregon's statewide land use planning standards as they relate to local government action. 12 This Part also considers less direct ways in which local governments can engage in green governance, in the form of advocacy in response to states' action that affects local environmental interests. Part Three briefly discusses the impact on

^{10.} See infra notes 15-57 and accompanying text.

^{11.} See infra notes 68-81 and accompanying text.

^{12.} See infra notes 82-92 and accompanying text.

local green governance of federal preemption under the Federal Energy Policy and Conservation Act, when local governments enact energy efficiency standards that exceed federal standards.¹³ Part Four considers another form of green governance, municipalities' multisector collaborations and membership in urban networks that produce benchmarks and best practices for resilient approaches to weather-related risks.¹⁴ The article concludes by arguing in favor of a pluralistic conception of local green governance and its collective importance to a global response to extreme weather occurrences brought about by climate change.

1. THE RELATIONSHIP BETWEEN MUNICIPAL REGULATORY REGIMES AND THIRD-PARTY STANDARDS IN LOCAL GREEN GOVERNANCE

A. The Emergence and Derivation of Performance-based Measures in Local Green Codes

Municipal action to address the environmental and energy use implications of climate change often occurs in the form of "green" building codes. ¹⁵ Among other goals, these codes monitor energy consumption and limit greenhouse gas emissions in the construction or retrofitting of buildings through the use of design, building methods, and materials that enable efficient use of resources, promote health, and reduce waste. ¹⁶

Green building codes regulating energy efficiency, water consumption, choice of materials, and storm water management, typically take one of two forms. The first is a measure that prescribes

^{13.} See infra notes 106-20 and accompanying text.

^{14.} See infra notes 121-47 and accompanying text.

^{15.} Municipal green governance also extends to zoning and other regulations that can address climate-related vulnerabilities. The enacted proposals of New York City's Green Codes Task Force also encompass amendments to the zoning code. *See, e.g., GCTF Enacted Proposals, NYC MAYOR'S OFFICE OF SUSTAINABILITY, GREEN BUILDINGS AND ENERGY EFFICIENCY, http://www.nyc.gov/html/gbee/html/codes/enacted.shtml [https://perma.cc/DN4P-Z65D].*

^{16.} Keith H. Hirokawa, At Home with Nature: Early Reflections on Green Building Laws and the Transformation of the Built Environment, 39 ENVTL. L. 507, 514 (2009) cited in Jeffrey Pike, A Tale of Two Codes: The Influence of Albuquerque and Washington on Green Building, 41 B.C. ENVTL. AFF. L. REV. 201 (2014); Nancy E. Shurtz, Eco-Friendly Building from the Ground Up: Environmental Initiatives and the Case of Portland, Oregon, 27 J. ENVTL. L. & LITIG. 237, 242 (2012).

the methods, dimensions, or materials to be used in a construction project.¹⁷ This approach places little to no discretion in the builder or other regulated entity as to how to comply, and for that reason compliance is easier to measure.¹⁸ In contrast, a performance-based measure is one that focuses on outcome rather than the manner in which the outcome is achieved.¹⁹ These two approaches are not mutually exclusive: some codes include both kinds of measures as alternative routes to achieving code compliance.²⁰

A major impetus and reference point for performance-based green regulation at the local level are third-party ratings systems developed outside the government sector for documenting use of sustainable, energy-efficient practices. These systems assess a building's energy-related performance under multiple categories.²¹ Examples of ratings systems include the Leadership in Energy and Environmental Design (LEED) established by the U.S. Green Building Council (USGBC),²² perhaps the most widely known; the National Green Building Standards (National Association of Home Builders);²³ and the

17. Hirokawa, supra note 16, at 520, cited in Pike, supra note 16, at 216.

^{18.} Hirokawa, supra note 16, at 520, cited in Pike, supra note 16, at 230-31.

^{19.} Hirokawa, *supra* note 16 at 520, *cited in* Pike, *supra* note 16, at 217. This more supple approach often entails accumulation of credits that then correspond to the energy efficiency of a given product. As long as the regulated entity accrues the requisite number of credits, she may do so by varying the combinations of products associated with higher or lower credit levels. *See* Pike, *supra* note 17, at 217.

^{20.} Pike, *supra* note 17, at 217.

^{21.} Hirokawa, *supra* note 16, at 515. The LEED rating system, for example, employs six categories of assessment for New Construction and Major Renovation as well as for Homes: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation and Design Process. Homes also includes assessment categories for Location and Linkages and Awareness and Education. *Id.* at 516-19.

^{22.} U.S. Green Building Council, http://www.usgbc.org/ (last visited Feb. 15, 2017).

^{23.} ICC 700 National Green Building Standard, NATIONAL ASSOCIATION OF HOME BUILDERS, https://www.nahb.org/en/research/nahb-priorities/green-building-remodeling-and-development/icc-700-national-green-building-standard.aspx [https://perma.cc/ZY5J-WHWJ]; see also Third Edition of ANSI-Approved National Green Building Standard Now Available, NATIONAL ASSOCIATION OF HOME BUILDERS (Apr. 20, 2016), https://www.nahb.org/en/news-and-publications/press-releases/2016/04/third-edition-of-ansi-approved-national-green-building-standard-now-available.aspx [https://perma.cc/24EZ-A3LK].

GreenPoint Rated System (used in California for residential development).²⁴ Third-party standards provide guidelines for varying construction markets (commercial, residential, municipal buildings); each building type has ratings categories and required actions, or prerequisites that must be completed to establish evidence of compliance.²⁵ Commitment to energy-efficient green design and construction practices enables builders to accrue points; the accumulation of points, in turn, leads to a certification category based on points earned at incremental levels (e.g., LEED certified, bronze, silver, gold, platinum).²⁶

The formulation of third-party standards typically is not a public process, however, but rather is determined by the rating organization's members.²⁷ Builders using these third-party systems incur costs for inspections and verification of compliance²⁸ as distinguished from a purely public regulatory apparatus.²⁹ When municipalities look to third-party certification systems, questions thus arise that go to the

^{24.} Office of The California Attorney General, STATE AND LOCAL GOVERNMENT GREEN BUILDING ORDINANCES IN CALIFORNIA 4 (2008).

^{25.} Jeffrey W. King, *An Overview of Green Construction Rating Programs, in* New Developments in Green Construction Law Leading Lawyers on Analyzing Recent Trends, Navigating Regulatory Standards, and Balancing Incentives and Risks *1, *3-4 (2011).

^{26.} Id. at *4.

^{27.} Sarah Fox, A Climate of Change: Shifting Environmental Concerns and Property Law Norms Through the Lens of LEED Building Standards, 28 VA. ENVTL. L.J. 299, 303 (2010). For example, the USGBC formulated the LEED standards through a committee process including committees drawn from the building and construction sector. A broad array of building industry professionals participates in USGBC, including building owners, real estate developers, facility managers, architects, engineers, contractors, product manufacturers, as well as the government and nonprofit sectors. King, supra note 25, at *3. However, ratings organizations approved by the American National Standards Institute, such as the National Green Building Standard, do include public input in the standard-formulating process, elaborated in the "ANSI Essential Requirements: Due process requirements for American National Standards." Standards Activities Overview, AMERICAN NATIONAL STANDARDS INSTITUTE, https://www.ansi.org/standards_activities/overview/overview.aspx?menuid=3 [https://perma.cc/M9TY-RRC7].

^{28.} See, e.g., Leadership in Energy and Environmental Design, U.S. GREEN BUILDING COUNCIL, http://www.usgbc.org/leed#rating [https://perma.cc/GM27-JE25].

^{29.} See Ian A. Stewart et al., First In The Nation: California's Mandatory Green Building Standards, 52 No. 6 DRI For Def. 41 (2010).

crux of public governance, implicating the nondelegation doctrine, which limits a legislative body's delegation of its functions to other branches of government or private entities.³⁰ On its face, a municipality's use of privately promulgated third-party standards risks improperly delegating public regulatory authority to private parties and permitting a private entity to usurp the role of municipal standard setting and policy making.³¹ Further, as noted, municipal reliance on third-party systems limits public participation in formulating standards.³²

Resolving these questions depends in large extent upon the manner and degree of a municipal government's embrace of third-party standards. Municipal adoption of a third-party rating system raises potential delegation issues of two kinds. First, municipal building and permitting officials risk running afoul of the nondelegation doctrine when they base their decisions to approve a development's green attributes entirely on a third-party standard without independent input.³³ A second problem entails wholesale incorporation of a thirdparty organization's standards including the organization's ongoing changes or adjustments to the standards, again if without involvement of a more public process.³⁴ By contrast, approaches using third-party standards in a more limited manner, as a baseline for, or as a permitted alternative pathway to, publicly promulgated standards seem less problematic. The following discussion considers various municipal approaches to using third-party green standards in light of these public governance and delegation concerns.

^{30.} See Carter v. Carter Coal Co., 298 U.S. 238, 311 (1936) (holding a provision of a federal statute, which permitted coal producers and miners to make wage and hour determinations, to be unconstitutional, concluding it was "legislative delegation in its most obnoxious form; for it is not even delegation to an official or an official body, presumptively disinterested, but to private persons whose interests may be and often are adverse to the interests of others in the same business").

^{31.} Edward Teyber, *Incorporating Third Party Green Building Rating Systems into Municipal Building and Zoning Codes*, 31 PACE ENVTL. L. REV. 832, 840, 844 (2014).

^{32.} Id. at 844.

^{33.} Id. at 840.

^{34.} Id. at 844-45.

B. Direct Incorporation of Third-party Standards in Municipal Green Regulation

Municipalities incorporate third-party standards in green codes in various ways, often based on type and source of ownership of construction, on whether compliance is mandated or voluntary, and on whether third-party standards are the sole criteria or one of several sources of green requirements. Some municipalities, for example, Portland, Oregon, the first U.S. municipality to adopt legislation to reduce carbon dioxide emissions, ³⁵ require city-owned buildings but not privately owned structures to meet third-party requirements. ³⁶ In California, San Francisco requires new large commercial construction, including major alterations, new residential construction and major alterations, and new municipal projects, including additions and alterations to meet city green building standards linked to the LEED and GreenPoint Rated systems. ³⁷

36. The 2015 amendment to the City of Portland's Green Building Policy for City-owned Facilities defines "city-owned projects" as including "work spaces and structures that the City designs, builds, owns, operates, maintains, or supports through loans, grants, and/or other financial benefit." Exhibit A: Green Building Policy for City-owned Facilities (codified as amended at City of Portland's Green Building Policy Res. 37122). Initially Portland required new City-owned buildings to attain LEED Silver certification, and later raised that requirement to LEED Gold certification. Shurtz, *supra* note 16 at 279. In its present form, the Portland green mandate states:

All new, occupied City-owned buildings over 20,000 square feet and/or with a total construction budget over \$5 million will... [r]egister and certify for the US Green Building Council's Leadership in Energy and Environmental Design (LEED) Building Design and Construction (BD+C) at the Gold level and/or achieve Living Building Challenge status.

Exhibit A: Green Building Policy for City-owned Facilities § 1.1 (codified as amended at City of Portland's Green Building Policy Res. 37122). The City permits new occupied City-owned buildings of less than 20,000 square feet or with a construction budget less than \$5 million to meet the requirements of any of three private ratings systems. *Id.* The City also mandates green code compliance for projects receiving public development loans and authorizes subsidized loans, grants, and technical assistance to support green building in the private sector. *See* Shurtz, *supra* note 16, at 279-80, 284-86, 293.

37. San Francisco Green Building Code, SF ENVIRONMENT (2016), http://sfenvironment.org/article/new-construction-and-major-renovations/green-building-ordinance-san-francisco-building-code. Evidence of compliance with

^{35.} Shurtz, *supra* note 16, at 276.

The city of Toronto, Canada, uses third-party review and LEED credits to implement aspects of its sustainable site and building design environmental performance measures, comprising the Toronto Green Standard.³⁸ Part of the City's Climate Change Action Plan for decreasing Toronto's greenhouse gas emissions by 80 per cent by 2050, the Toronto Green Standard combines mandates for new construction (Tier One) and voluntary compliance with higher level performance standards assessed by third-party review, and encouraged by the availability of financial incentives (Tier Two).³⁹ The measures address air quality, greenhouse gas emissions/ energy efficiency, water quality, quantity, and efficiency, ecology, and solid waste; compliance with these measures earns LEED credits and helps fulfill LEED certification. 40 The City of Boston also offers some flexibility in the use of third-party standards, having amended its zoning code to require that new and rehabilitation construction exceeding 50,000 square feet be LEED "certifiable," but the city's inspection officials retain the authority to issue permits and approvals. 41 The city does, however, require LEED Silver certification for city-owned building projects.⁴²

LEED or GreenPoint Rated standards for these projects is mandatory, unless an alternative or equivalent standard is approved. *See* CITY AND COUNTRY OF SAN FRANCISCO DEPARTMENT OF BUILDING INSPECTION, ADMINISTRATIVE BULLETIN NO. AB-093, IMPLEMENTATION OF GREEN BUILDING REGULATIONS (2017).

^{38.} LIVEGREEN TORONTO, TORONTO GREEN STANDARD FOR NEW MID TO HIGH-RISE RESIDENTIAL AND ALL NON-RESIDENTIAL DEVELOPMENT VERSION 2.1 (2017) (applicable to new mid to high-rise residential and all industrial, commercial, and institutional development).

^{39.} Id.

^{40.} Id.

^{41.} Boston, Mass., Green Buildings art. 37 (2007). See also John Dalzell, Celebrating the 10th Anniversary of Boston's Green Building Market Transformation, U.S. GREEN BUILDING COUNCIL (Jan. 11, 2017), https://www.usgbc.org/articles/celebrating-10th-anniversary-bostons-green-building-market-transformation [https://perma.cc/HJ5K-4539]; Teyber, supra note 31, at 843 n.53.

^{42.} Robin Suttell, *America's Cities 'LEED' the Way*, BUILDINGS (May 17, 2005), www.buildings.com/article-details/articleid/2475/title/america-s-cities-leed-theway [https://perma.cc/78Z5-HSKJ].

C. New York City's Hybrid Approach

New York City's efforts to develop green codes diverged from other municipalities' more direct reference to third-party standards. Although in 2008 New York City enlisted the support of the Green Building Council, the local chapter of USGBC (as noted, the parent organization of LEED), the City did not adopt the USGBC's LEED rating system for private construction. Instead, under the guidance of the Green Building Council, the City assembled a Green Codes Task Force to develop a framework for green building standards. A Task Force comprising 200 volunteer green building experts examined the City's building, fire, water, sewer, and zoning codes and then proposed 111 code additions or revisions.⁴³

In the executive summary to the Task Force report, the City explained its rationale for developing an independent green code rather than incorporating LEED requirements. The City concluded that enacting a code was preferable because it could be enforced as law, allow for cost savings, focus on specific municipal needs and concerns, address market failures (such as the reticence of building owners to invest in energy efficiency benefits that would benefit tenants), and serve positive social and environmental goals.⁴⁴

The Task Force recommendations fell into ten categories based on USGBC's LEED subject areas as modified to include areas of particular interest in New York City, including overarching code issues, health and toxicity, energy and carbon emissions (three categories), building resilience, resource management, storm water management, water conservation, and urban ecology. All proposals included sample statutory language, background issues and rationale,

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^{43.} Sarah J. Adams-Schoen, *Sink or Swim: In Search of A Model for Coastal City Climate Resilience*, 40 COLUM. J. ENVTL. L. 433, 460-461 (2015) [hereinafter *Sink or Swim*].

^{44.} URBAN GREEN COUNCIL, NEW YORK CHAPTER OF THE U.S. GREEN BUILDING COUNCIL, NYC GREEN CODES TASK FORCE: A REPORT TO MAYOR MICHAEL R. BLOOMBERG & SPEAKER CHRISTINE C. QUINN 1-2 (2010). However, the City does incorporate LEED standards as presumptive or alternate standards for municipal structures above a \$2 million cost threshold and for privately owned projects that receive City funding above designated cost or percentage thresholds. *Sink or Swim, supra* note 43, at 498 (NEW YORK CITY, N.Y., LOCAL LAW 86 § 2 (2005)).

^{45.} NYC GREEN CODES TASK FORCE, supra note 44, at 9-68.

cost analysis, and precedents from other jurisdictions.⁴⁶ Additionally, the Task Force provided comparisons to related LEED standards.⁴⁷

In developing this framework for green governance, the City added environmental protection as a foundational principle for its construction codes, 48 including the

goal of improving indoor environments,⁴⁹ energy efficiency,⁵⁰ energy diversity (by removing code and zoning barriers to installing solar energy, wind energy, and combined heat and power systems),⁵¹ resource conservation,⁵² and storm water management.⁵³ The Task Force efforts contributed to the passage of New York City's Greener Greater Buildings Plan,⁵⁴ which among other legislative provisions requires large buildings in the city to do annual benchmarking of water and energy consumption,⁵⁵ and buildings with over 50,000 square footage to undertake an energy audit and retro-commissioning once every decade.⁵⁶

In contrast to other major cities, New York has gone far in the direction of embracing an independent regulatory process to develop

^{46.} Sink or Swim, supra note 43, at 461 (discussing NYC MAYOR'S OFFICE OF SUSTAINABILITY, Green Codes Task Force (GCTF) Proposals, GREEN BUILDINGS & ENERGY EFFICIENCY (2017), http://www.nyc.gov/html/gbee/html/codes/proposals.shtml [https://perma.cc/M344-FVDB]).

^{47.} See AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY, Local Energy Efficiency Policy, Energy Efficiency Portals (2016) http://aceee.org/sector/local-policy/case-studies/new-york-city-green-codes-task-force [https://perma.cc/KNX6-VPW3].

^{48.} URBAN GREEN COUNCIL, supra note 44, at 10.

^{49.} See id. at 14-23.

^{50.} See id. at 33-48.

^{51.} See id. at 24-32.

^{52.} See id. at 54-56.

^{53.} See id. at 61-64.

^{54.} NYC MAYOR'S OFFICE OF SUSTAINABILITY, *Greener, Greater Buildings Plan*, ONE CITY: BUILT TO LAST (2017), http://www.nyc.gov/html/gbee/html/one-city/one-city-built-to-last.shtml [https://perma.cc/PUQ4-AYM8].

^{55.} NYC MAYOR'S OFFICE OF SUSTAINABILITY, *Greener, Greater Buildings Plan*, LL84: NYC BENCHMARKING LAW (2017), http://www.nyc.gov/html/gbee/html/plan/ll84.shtml [https://perma.cc/UE3D-Q6GZ].

^{56.} NYC MAYOR'S OFFICE OF SUSTAINABILITY, *Greener, Greater Buildings Plan*, LL87: ENERGY AUDITS AND RETRO-COMMISSIONING (2017), http://www.nyc.gov/html/gbee/html/plan/ll87.shtml [https://perma.cc/4XXU-FZB2].

green construction standards, but one that draws on expertise outside of government. To the extent that the involvement of private entities is advisory to a broader public standard-setting process, the use of the Task Force does not seem inconsistent with the nondelegation doctrine. Nor does the participation of the Green Building Council, or the use of LEED categories as reference points, raise concerns that municipal officials have surrendered their regulatory authority.

At first blush, the more direct use of LEED standards in the codes of other U.S. cities calls for closer analysis, although the green regulatory frameworks adopted in Boston and Toronto, for example, are not wholesale incorporations of third-party standards, and Portland requires LEED compliance or alternative performance standards only for city-owned buildings. Cities such as San Francisco that require third-party certification for various categories of private construction perhaps come closest to implicating a non-delegation analysis. However, if the standard-generating is not done by a regulated entity, even green building codes that require certification by LEED or other private rating systems may be differentiated from the statutory arrangement rejected by the Supreme Court in *Carter Coal.*⁵⁷

As municipalities acquire more experience with green governance, their evolving regulatory schemes have demonstrated greater complexity and variation in approach to generating standards. Because the local regimes of green governance addressed in this Part generally don't involve a total embrace of privately formulated rating systems, they seem in the main consistent with public regulatory norms. Thus, local green regulation likely would survive a challenge based on the non-delegation doctrine. The next Part addresses the structural relationship between state and local authority, and the implications for local green governance.

2. THE INTERPLAY BETWEEN STATE AND LOCAL GREEN REGULATION

The argument in favor of local green governance in the U.S. is complicated by variations in individual states' allocation of power

^{57.} See Carter v. Carter Coal Co., supra note 30, at 310-11 (holding a statutory provision, which conferred power to fix the maximum hours of labor on a majority of coal producers and miners, to be unconstitutional due to possible conflicting interests).

between state and local governments. At the extremes, states' conferral of local regulatory authority may be as limited as Dillon's Rule (essentially, powers that are not specifically granted to local governments by state statute, necessarily implied in that grant, or otherwise essential and indispensable to the purposes of the municipal corporation, are withheld),⁵⁸ or as broad as a state constitutional grant of home rule power that confers on localities all powers that a state legislature could delegate unless subsequently restricted by statute.⁵⁹ State regulatory power may also operate coercively vis-à-vis local governments, in the sense of requiring municipalities to engage in action addressing climate change.⁶⁰

Where local government authority exists within the "home rule" rubric, its extent and source vary considerably; the source of authority may be statutory rather than constitutional and the grant of authority

^{58.} DANIEL R. MANDELKER ET AL., STATE AND LOCAL GOVERNMENT IN A FEDERAL SYSTEM 119-20 (7th ed. 2010). *See also id.* at 120, discussing Board of Supvrs. v. Horne, 215 S.E.2d 453, 456, 459 (Va. 1975) (holding that "Dillon's Rule remains in effect" in Virginia and, on this basis, County Board of Supervisors lacked authority to ban for a period of time subdivision development), *reaffirmed in* Board of Supvrs v. Countryside Investment Company, 522 S.E.2d 610, 613 (Va. 1999) (holding portions of County Subdivision Ordinance void).

^{59.} *See* Mandelker et al., *supra* note 58, at 133-34. *See*, *e.g.*, S.D. Const. art. IX, § 2.

A chartered governmental unit may exercise any legislative power or perform any function not denied by its charter, the Constitution or general laws of the state. The charter may provide for any form of executive, legislative and administrative structure...provided that the legislative body so established be chosen by popular election and that the administrative proceedings be subject to judicial review. Powers and functions of home rule units shall be construed liberally.

Id. A more circumscribed variation of constitutional home rule authority is that described as "imperium in imperio," consisting of a more specific grant of authority, typically over a municipality's "property, affairs, and government." See MANDELKER ET AL. supra note 58, at 133. See, e.g., OHIO CONST. art. XVIII, § 3 ("Municipalities shall have authority to exercise all powers of local self-government and to adopt and enforce within their limits such local police, sanitary and other similar regulations, as are not in conflict with general laws.").

^{60.} See, e.g., Deborah Salon et al., Local Climate Action: Motives, Enabling Factors and Barriers, 5 CARBON MGMT. 67, 73, 75 (2014) (referring to the effect of actual or possible action by California's Attorney General on municipalities' adopting climate plans); see also discussion of the mandatory provisions in CalGreen's building standards, infra note 65 and accompanying text.

may be self-executing or require a separate act of the state legislature to implement. Undicial interpretations of standards for grants of home rule authority, such as a municipality's "property, affairs, or government," also vary in breadth. In the context of green governance, generating standards to achieve energy-efficient design, construction methods, and materials, and sustainable land use planning, arguably goes to the core of a local government's property, affairs, and government. Green standards addressing these concerns would seem to fall within a municipality's purview to act, unless a court interprets the local action to be preempted by state authority.

Recognizing the variations that exist among the states, this Part will discuss selected examples of statewide regulatory schemes that contemplate nuanced, shared governance relationships with local governments. The first is a paradigm for allocating state-local power over green building standards adopted in California in 2010. CalGreen, 65 the first mandatory state-level green building standards, preserves a fair measure of power for localities. This Part will examine how, when the interests of state and local governments are fairly well aligned, CalGreen's mandatory regulatory scheme coexists with more robust local green regulation. In a second example of state-local power distribution that also has implications for climate change initiatives, this Part will consider Oregon's statewide land use planning standards, which define the role of state government in setting broad land use goals but also clarify what is generally considered to be the province of local government to carry out zoning and land use regulation.

The balance of Part Two will address a different application of the local governance concept, involving contending approaches by state and local governments to the interpretation of federal environmental law. It will discuss local governments' efforts to advance green governance through litigation, specifically, in a Local Government Coalition's amicus brief in *West Virginia v. Environmental Protection*

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^{61.} Richard Briffault, *Home Rule for the Twenty-First Century*, 36 URB. LAW. 253, 253 (2004).

^{62.} Id. at 256.

^{63.} See id. at 253.

^{64.} See, e.g., MANDELKER ET AL., supra note 58, at 177-78 (quoting discussion of forms of preemption in Bravo Vending v. City of Rancho Mirage, 20 Cal. Rptr. 2d 164, 169 (Cal. App. 1993)).

^{65.} CAL. HEALTH & SAFETY CODE § 18940.5 (West 2014).

Agency (EPA),⁶⁶ supporting the (Obama administration) EPA's interpretation of section 111(d) of the Clean Air Act⁶⁷ over that of 29 states.

A. CalGreen: State Regulation as Floor

In one sense CalGreen may be understood as a regulatory continuation of a succession of California environmental statutes reflecting a robust public policy at the state level. These include the Global Warming Solutions Act of 2006 (aimed at greenhouse gas reduction);⁶⁸ the Sustainable Communities and Climate Protection Act of 2008 (governing land use and transportation planning),⁶⁹ a series of laws regulating energy efficiency in electric utilities,⁷⁰ and legislation mandating water conservation measures.⁷¹

When the California Building Standards Commission approved CalGreen in 2010, an important component of California's commitment to energy efficiency and sustainability, the resulting regulatory scheme did not evince an intent to preclude or restrict local action. Rather, it established a baseline, serving as a floor above which localities could enact more stringent green standards. Taking effect in 2011, CalGreen covers residential and non-residential use, planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. It initially applied to all new construction, and a 2012

^{66.} West Virginia, et al v. EPA, No. 15-1363 (D.C. Cir. 2015).

^{67.} Brief for National League of Cities et al. as Amici Curiae Supporting Respondents, West Virginia, et al v. EPA (D.C. Cir. 2016) (No 15-1363) [hereinafter Amicus Brief of Local Government Coalition].

^{68.} California Global Warming Solutions Act of 2006, Cal. Health & Safety Code \S 38500 (2007).

^{69.} S. 375, 2007-2008 Leg., Reg. Sess. (Cal. 2008), 2008 Cal. Stat. 728 (2008) (Codified in part as CAL. CODE REGS. tit. 2 § 14522.11 (2011)).

^{70.} H. David Nahai & Kristen Deal, *The Role and Regulation of Green Buildings in California and Los Angeles: A New Paradigm for Real Estate Lawyers and Professionals*, in Strategies for Green Real Estate Law Leading Lawyers On Certifying Properties and Complying with Green Building Regulations *1 (2013) (discussing recent emissions and energy efficiency legislation relating to electric utilities).

^{71.} See id. at *2.

^{72.} Ian A. Stewart et al., *supra* note 29.

amendment applied the code to alterations and additions to existing nonresidential buildings.⁷³

Although CalGreen's mandatory provisions apply in localities throughout the state, it includes two tiers of higher voluntary standards to encourage further action by localities within the state.⁷⁴ Further, it allows cities to add or keep more demanding standards. ⁷⁵ In this way, CalGreen functions as a floor and a catalyst for further local action. The state system developed its standards independently of a private ratings service, through a public process, and its provisions are enforceable by state and local inspectors. ⁷⁶ However, complying with CalGreen's mandatory scheme does not preclude a pluralistic approach to local regulation, which includes local use of points-based ratings systems, 77 performance-based or prescriptive measures, or a combination of both, ⁷⁸ a variety of enforcement methods, ranging from plan checks, verification, third-party inspection, to penalties, ⁷⁹ and, alternatively, use of incentives (e.g., fee waivers, expedited permitting).⁸⁰ Some local ordinances take a comprehensive approach, combining standards, modes of enforcement, and incentives.⁸¹ In

^{73.} Nahai & Deal, supra note 70, at *3. Specific mandates include: reducing water consumption by 20%; diverting 50% of construction waste from landfills; using low pollutant-emitting materials; and requiring inspections of energy systems for nonresidential buildings exceeding 10,000 sq. ft.; separate meters for indoor and outdoor water uses in nonresidential buildings, and irrigation systems for larger landscape projects. Id. at *3-4. A 2013 amendment updated the state's plumbing and energy codes, and updated requirements for nonresidential alterations and additions. Id. at *8. An amendment effective in January 2017 revised a number of the requirements for nonresidential structures. See, California Building Standards Commission, 2016 California Green Building Standards Code, CALGREEN (2016) https://www.documents.dgs.ca.gov/bsc/CALGreen/2016CALGreenSummary-04-2017.pdf.

^{74.} Office of The California Attorney General, *supra* note 24, at 1.

^{75.} *Id.* at 7, citing CAL. CODE REGS. tit. 24, pt. 11. For example, Los Angeles' green regulation exceeds CalGreen by requiring solar-ready roofs and electric vehicle-ready components for all new buildings. *Id.*

^{76.} Ian A. Stewart et al., *supra* note 29.

^{77.} Office of The California Attorney General, *supra* note 24, at 1, at 3-6.

^{78.} *See id.* at 6-7. For example, the city of Chula Vista combines prescriptive and performance-based measures.

^{79.} See id. at 8-9.

^{80.} See id. at 10.

^{81.} See id. at 10-11.

permitting localities this degree of latitude, California's state regulatory apparatus functions more in the manner of a home rule provision that recognizes a locality's interest in matters affecting its property, affairs, and government—here, its interest in environmental protection through energy conservation and reduction in greenhouse gas emissions.

B. Oregon's Statewide Land Use Planning Guidelines: State and Local Government Partnership

The state of Oregon has adopted a comprehensive set of planning goals governing land use as part of a process overseen by the state's Land Conservation and Development Commission (LCDC). Read The nineteen goals, codified as administrative rules, are highly specific concerning the process that local government units and other government agencies must follow; land use decisions are subject to review by a land use board of appeals. Land use plans must include specific information about goals and alternatives, and the policy basis for the action, with reference to "social, economic, energy and environmental needs." Plans must be publicly available, and plans and implementing measures require vetting at a public hearing. Under prescribed circumstances a local government may seek an exception to a state goal, but must provide findings of facts in support, submit to a public hearing, and a LCDC review.

Despite the particularities of the process, local government units are not required to follow the state Guidelines, which relate to both planning and implementation, but may choose an alternative method so long as the local government demonstrates how the alternative pathway serves the local government's land use goals. Significantly, the Goals and Guidelines clarify the relationship of the Guidelines to local government authority:

^{82.} OR. DEP'T OF LAND CONSERVATION & DEV., OREGON'S STATEWIDE PLANNING GOALS & GUIDELINES, Introduction (2010) [hereinafter Oregon Statewide Planning Program: Introduction].

^{83.} See id.

^{84.} OR. DEP'T OF LAND CONSERVATION & DEV., OREGON'S STATEWIDE PLANNING GOALS & GUIDELINES, 2 Land Use Planning OAR 660-015-0000(2) (2010).

^{85.} Id.

^{86.} Id.

Guidelines—are suggested directions that would aid local governments in activating the mandated goals. They are intended to be instructive, directional and positive, not limiting local government to a single course of action when some other course would achieve the same result. Above all, guidelines are not intended to be a grant of power to the state to carry out zoning from the state level under the guise of guidelines. ⁸⁷

This language highlights the intent of the policy to vest land use planning in local governments, subject, however, to maintaining consistency and coordination with statewide goals.⁸⁸

The state regulatory scheme seeks to accomplish this distribution of power over land use decision making by requiring that each local government have a comprehensive land use plan implemented by zoning and land-division ordinances, ⁸⁹ and that the local plan show consistency with statewide goals, subject to review by the state's Land Conservation and Development Commission. ⁹⁰ Notwithstanding these requirements, the statewide program is characterized as a "partnership between state and local governments." ⁹¹ The state sets the standards, but makes clear that local governments carry out the planning and most land-use regulations: "The state does not write comprehensive plans. It doesn't zone land or administer permits for local planning actions such as variances and conditional uses. And unlike some other states, Oregon does not require environmental impact statements."⁹²

Because Oregon's statewide land use planning program specifically takes energy and environmental concerns into account, it is a necessary part of the state's climate change planning along with the Oregon Sustainability Act, which also has a statewide purview but does not impose substantive mandates (for example, it does not require

^{87.} Oregon Statewide Planning Program: Introduction, supra note 82, at 1.

^{88.} Id.

^{89.} Id.

^{90.} See id.

^{91.} *Id*.

^{92.} Id.

adoption of green building standards for private construction).⁹³ The pattern in Oregon is to create a framework for action and provide oversight to ensure consistency with broader goals but to vest actual planning authority in local government.

In sum, the relationship between state- and local-level green regulation will depend on a number of factors, including the nature and extent of authority conferred by a state on its localities, and whether a state's green regulation is intended to be exclusive of local action, a baseline or floor to which localities may add more robust rules, as in CalGreen, or a source of non-mandatory guidelines, as in Oregon's Land Use Planning standards. Were a court to rule on a challenge to a local green building or zoning regulation that it allegedly exceeds the scope of authority conferred by state law, an argument on behalf of local action might best be framed in terms of environmental urgency: as long as state process requirements are met, a municipality should be given sufficient authority over its buildings, infrastructure, and water and energy consumption, to address a locally specific vulnerability to documented climate risks.

C. Governance Through Litigation: Local Government Coalition Versus States in West Virginia v. EPA

Municipalities' efforts at green governance also include less direct pathways, for example, by participating in litigation supporting outcomes conducive to local green governance goals. The pending though currently uncertain legal challenge to the EPA's Clean Power Plan, a key component of the Obama administration's international advocacy for climate change initiatives, ⁹⁴ is illustrative. Behind the effort of West Virginia and 28 other state governments and state offices to force a stay of the EPA's Final Agency Action approving the Clean Power Plan ⁹⁵ has been a dispute over the agency's interpretation

^{93.} Carl J. Circo, Using Mandates and Incentives to Promote Sustainable Construction and Green Building Projects in the Private Sector: A Call for More State Land Use Policy Initiatives, 112 PENN. St. L. Rev. 731, 776 (2008).

^{94.} Adam Liptak & Coral Davenport, Supreme Court Deals Blow to Obama's Efforts to Regulate Coal Emissions, N.Y. TIMES, Feb. 9, 2016, at A1.

^{95.} Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60).

of language in section 111(d) in the Clear Air Act, that is, the "best system of emission reduction." ⁹⁶

During the Obama administration, the EPA interpreted that undefined term to allow it, in its Clean Power Plan, to require states to reduce greenhouse gas emissions in fossil-fueled power plants, the nation's largest source of such emissions. ⁹⁷ State parties and industry members disputed that reading, ⁹⁸ whereas the Local Government Coalition members appearing amici curiae cited to the mounting evidence of the impact of unabated greenhouse gas emissions on the climate and on severe weather. ⁹⁹ The Coalition members have argued that the EPA's interpretation requiring action at the state level is a

Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions, which, together with adaptation, can limit climate change risks.

^{96.} Amicus Brief of Local Government Coalition, supra note 67, at 12.

^{97.} Amicus Brief of Local Government Coalition, supra note 67, at 10.

^{98.} The opponents of the phased-in Plan sought a stay of enforcement pending judicial review before the District of Columbia Circuit, which denied the application by order filed on January 21, 2016. See Order, No. 1594951 at 2, West Virginia v. EPA, No. 15-1363 (D.C. Cir. filed Oct. 23, 2015). The challengers then sought, and obtained, a temporary stay from the United States Supreme Court, which, in an order dated February 9, 2016, by a vote of 5-4 (Justices Breyer, Ginsburg, Kagan, and Sotomayor dissenting), granted the stay pending resolution of the petitions for review in the D.C. Circuit Court of Appeals and of the applicants' petition, if any, for a writ of certiorari. Under terms of the order, if the Court were to deny a certiorari petition, the stay would terminate automatically, but if the petition were to be granted the stay would continue in effect until the Court entered judgment in the case. See Order in Pending Case, No. 15A773, West Virginia v. EPA (D.C. Cir. filed Oct. 23, 2015). The order staying a regulation before review by a federal appeals court is reportedly without precedent. See Liptak & Davenport, supra note 94. The challenge to the Clean Power Plan was argued before the D.C. Circuit Court of Appeals en banc on September 27, 2016. See Caitlin Marquis, Full D.C. Circuit Hearing of Oral Arguments on Clean Power Plan Will Speed Final Ruling, Advanced Energy Perspectives (May 19, 2016, 4:34:32 P.M.).

^{99.} See, e.g., CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS, supra note 1, at 8. The summary report included the following finding:

SPM 2. Future Climate Changes, Risks and Impacts

reasonable reading of the statute, comports with Congressional intent to lessen the impact of air pollution, and benefits municipalities, the "first responders" to climate change. 100

To support its position, the Local Government Coalition pointed to the limitations on local governments' regulatory authority vis-à-vis the states, and the importance of national environmental law and policy to municipalities' efforts at green governance:

[L]ocal governments have little ability to regulate the circumstances imposed on them by the wider world. Because cities' legal authority generally extends only as far as their state governments allow, cities' efforts to adapt to a changing climate and to mitigate its causes are highly sensitive to national policies like the Clean Power Plan, which shape national markets, steer state action, and have large direct impacts on nationwide emissions.¹⁰¹

The brief goes on to document the various efforts of Local Government Coalition members to mitigate greenhouse gas

100. Amicus Brief of Local Government Coalition, supra note 67, at 2, 14.

Notably, the Trump administration issued an executive order on March 28, 2017, directing executive agencies to review and, if appropriate, begin a rulemaking process to rescind regulations that burden the "development or use of domestically produced energy resources." Exec. Order No. 13783, 82 Fed. Reg. 16,093 (Mar. 28, 2017). Thereafter, the EPA moved the D.C. Circuit to hold in abeyance the consolidated cases in West Virginia v. EPA pending the EPA's review of and possible rulemaking concerning the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units. On April 28, 2017, the D.C. Circuit granted a 60-day abeyance. West Virginia v. EPA, No. 15-1363 (D.C. Cir. filed Apr. 28, 2017), https://www.eenews.net/assets/2017/04/28/ document gw 03.pdf. State and municipal intervenors have urged the court to issue a merits ruling to limit the harm caused by carbon dioxide emissions. See State and Municipal Respondent-Intervenors' Supplemental Brief in Response to April 28, 2017 Order, West Virginia v. EPA, No. 15-1363 (D.C. Cir. filed May 15, 2017). In a status report filed June 29, 2017, the EPA maintained that it had begun interagency review for a proposed regulatory action and had transmitted a draft proposed rule to

the Office of Management and Budget's Office of Information and Regulatory Affairs. The EPA asked that these cases "remain in abeyance pending the conclusion of the expected forthcoming rulemaking." EPA Status Report, West Virginia v. EPA

⁽No. 15-1363 and consolidated cases) at 3 (D.C. Cir. filed June 29, 2017). 101. Amicus Brief of Local Government Coalition, *supra* note 67, at 17.

emissions¹⁰² and to adapt to climate risks—through code revisions, climate action plans, and resilience measures¹⁰³—which the Coalition argues would be made costlier if the Clean Power Plan's emissions reductions goals for power plants could not be implemented.¹⁰⁴

Here, by arguing in favor of federal environmental regulatory action, the local government amici seek to influence an outcome in litigation that is aligned with these municipalities' green governance goals. Reflecting these goals, the findings of the 5th Assessment Report of the Intergovernmental Panel on Climate Change emphasize that "substantial" carbon emissions reduction will be needed to ensure that mitigation and adaptation strategies will be effective. 105 Although the Local Government Coalition's initiative is neither legislative nor administrative/regulatory, participating in strategic advocacy to uphold the EPA's interpretation of the Clean Air Act supports favorable environmental policymaking—green governance—that municipalities cannot engage in directly. Here, as the municipalities' brief emphasizes, given state-level limitations on local government authority, when state and local interests are at odds, municipalities will pursue other pathways to achieve their governance goals, including steps to reinforce federal agency action that would help in the critical effort to reduce greenhouse gas emissions.

^{102.} Id. at 27-30.

^{103.} Id. at 19-27.

^{104.} Id. at 17-19.

^{105.} Climate Change 2014 Synthesis Report Summary for Policymakers, supra note 1, at 17:

SPM 3. Future Pathways for Adaptation, Mitigation and Sustainable Development.

Adaptation and mitigation are complementary strategies for reducing and managing the risks of climate change. Substantial emissions reductions over the next few decades can reduce climate risks in the 21st century and beyond, increase prospects for effective adaptation, reduce the costs and challenges of mitigation in the longer term and contribute to climate-resilient pathways for sustainable development.

3. PREEMPTION OF LOCAL GREEN REGULATION BY FEDERAL STATUTE

Federal law governing energy efficiency presents a preemption risk for local green regulation. The Federal Energy Policy and Conservation Act (EPCA)¹⁰⁶ expressly preempts state law that surpasses federal energy efficiency standards for consumer appliances and equipment. However, it allows exemption of a state regulation from the preemption ban via Department of Energy waiver or exception for a state or local code governing new construction if it meets all seven criteria under § 6297(f)(3) of the statute.¹⁰⁷ When

Exception for certain building code requirements

^{106.} Energy Policy and Conservation Act, 42 U.S.C. § 6291(1975). For an indepth discussion of the preemption provisions *see* Pike, *supra* note 16, at 212-16, 218-28.

^{107.} See 42 U.S.C. § 6297(f).

⁽³⁾ Effective on the effective date of an energy conservation standard for a covered product established in or prescribed under section 6295 of this title, a regulation or other requirement contained in a State or local building code for new construction concerning the energy efficiency or energy use of such covered product is not superseded by this part if the code complies with all of the following requirements:

⁽A) The code permits a builder to meet an energy consumption or conservation objective for a building by selecting items whose combined energy efficiencies meet the objective.

⁽B) The code does not require that the covered product have an energy efficiency exceeding the applicable energy conservation standard established in or prescribed under section 6295 of this title, except that the required efficiency may exceed such standard up to the level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d) of this section.

⁽C) The credit to the energy consumption or conservation objective allowed by the code for installing covered products having energy efficiencies exceeding such energy conservation standard established in or prescribed under section 6295 of this title or the efficiency level required in a State regulation referred to in subparagraph (B) is on a one-for-one equivalent energy use or equivalent cost basis.

⁽D) If the code uses one or more baseline building designs against which all submitted building designs are to be evaluated and such baseline building designs contain a covered product subject to an energy conservation standard established in or prescribed under section 6295 of this title, the baseline building designs are based on the efficiency level for such covered product which meets but does not exceed such standard or the efficiency

covered industries have challenged state and local codes on a preemption theory under this section of the statute, courts have had to undertake a close analysis whether the code standards require choices of energy-consuming products that exceed federal energy standards. This Part examines two federal court decisions that have engaged in that analysis, with differing results.

In an industry challenge to provisions of the Albuquerque Conservation Code, the United States District Court of the District of New Mexico concluded that prescriptive heating, ventilation, air conditioning, and water heating equipment provisions of Albuquerque's energy efficiency code that were stricter than federal standards were preempted as a matter of law. The court based its ruling on the broad preemption language of the EPCA se well as the intent of the statute to avoid inconsistency in regulations across state and local jurisdictions. Finding that the requisite evidentiary

level required by a regulation of that State for which the Secretary has issued a rule granting a waiver under subsection (d) of this section.

⁽E) If the code sets forth one or more optional combinations of items which meet the energy consumption or conservation objective, for every combination which includes a covered product the efficiency of which exceeds either standard or level referred to in subparagraph (D), there also shall be at least one combination which includes such covered product the efficiency of which does not exceed such standard or level by more than 5 percent, except that at least one combination shall include such covered product the efficiency of which meets but does not exceed such standard.

⁽F) The energy consumption or conservation objective is specified in terms of an estimated total consumption of energy (which may be calculated from energy loss- or gain-based codes) utilizing an equivalent amount of energy (which may be specified in units of energy or its equivalent cost).

⁽G) The estimated energy use of any covered product permitted or required in the code, or used in calculating the objective, is determined using the applicable test procedures prescribed under section 6293 of this title, except that the State may permit the estimated energy use calculation to be adjusted to reflect the conditions of the areas where the code is being applied if such adjustment is based on the use of the applicable test procedures prescribed under section 6293 of this title or other technically accurate documented procedure.

Id.

^{108.} Air Conditioning, Heating and Refrigeration Institute v. City of Albuquerque, 835 F. Supp. 2d 1133, 1133 (D.N.M. 2010).

^{109.} See id. at 1137.

^{110.} See id.

showing was absent, the court did not, however, rule on whether performance-based provisions of the Albuquerque code, specifically provisions directing that LEED Silver and Build Green New Mexico would meet code requirements, were also preempted. In a later ruling the district court held, based on the City's concession, that the prescriptive and performance—based provisions of the code were not severable, and, therefore, that the entire Albuquerque code was preempted.

In a similar preemption challenge to the Washington state building code, two federal courts upheld the code under EPCA. In *Building Industry Ass'n of Washington v. Washington State Building Code Council*, 113 the Ninth Circuit Court of Appeals affirmed the U.S. District Court for the Western District of Washington in its ruling that the Washington Code provisions met EPCA's preemption-exception requirements and thus were not preempted. 114 Specifically, the Circuit Court held that the district court correctly concluded that under section 6297(f)(3)(B), the Washington Building Code imposed no penalties for, nor required a builder to use, without other options, consumer products of a higher efficiency level than set in federal standards. 115

In addition, the court upheld the district court's ruling that the credit values assigned in Washington's Building Code for alternate ways to reduce energy consumption met the statutory requirement of a one-for-one equivalent energy use basis that would avoid unfairly discriminating between products and building methods. The court concluded that although Congress intended state and local building codes to allocate credit values in a manner that was proportional to the amount of energy saved, it did not contemplate a "perfect

^{111.} PATRICIA E. SALKIN, New York Zoning Law & Practice, 32A:29 (2017) (discussing Air Conditioning, Heating and Refrigeration Institute. v. City of Albuquerque, 835 F. Supp. 2d 1133 (D.N.M. 2010)).

^{112.} See Pike, supra note 16, at 222.

^{113.} Building Industry Ass'n of Washington v. Washington State Bldg. Code Council, 683 F.3d 1144 (9th Cir. 2012).

^{114.} Building Industry Ass'n of Washington v. Washington State Bldg. Code Council, 2011 WL 485895 (W.D. Wash. Feb. 7, 2011).

^{115.} Building Industry Ass'n of Washington v. Washington State Bldg. Code Council, 683 F.3d 1144, 1152 (9th Cir. 2012).

^{116.} See id. at 1155.

correspondence between energy use saved and credit value awarded."117

The courts' conclusion in the Washington case is significant because both courts accepted the need for some flexibility in comparing credits and energy consumption values. These rulings increase the likelihood that local code provisions that provide for alternative routes to compliance, such as those in San Francisco and Portland, will not run afoul of the federal preemption provisions. Similarly, the Albuquerque case points to the need to consider a severability analysis when a local legislature adopts alternative routes to meeting the code's requirements. In sum, the viability of local legislation setting green standards must take into account not only the potential limiting effects of state regulatory schemes, discussed in Part Two, *supra*, but the possibility of federal preemption of local energy efficiency standards applied to appliances and equipment used in new construction.

4. THE ROLE OF MULTI-SECTOR COLLABORATIONS AND URBAN NETWORKS IN SUPPORTING LOCAL GREEN STANDARDS

A. Multi-sector Public-Private Collaborations

Recognizing the role that third-party organizations have had in the development of local green standards, as noted some municipalities have embraced a broader, more collaborative governance process to which green building organizations contribute. The work of the New York City Green Codes Task Force, a collaboration among local government, the nonprofit advocacy community, and industry, is a notable example. Local government leaders (New York City's Mayor and City Council Speaker) spearheaded the Task Force, which arguably lent legitimacy to the process, by highlighting its public origin. At the same time, the Task Force was called by the New York City chapter of the U.S. Green Building Council (still the leading green ratings organization), which describes itself as a "movement of community leaders, professionals, businesses, and innovators working

118. See Pike, supra note 16, at 229-31.

^{117.} Id. at 1154.

^{119.} See id. at 230.

^{120.} AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY, *supra* note 47, at 4-5.

to accomplish a single bold vision: healthy, efficient and equitable buildings and communities for all." Embodying a broad movement with a "global mission," the U.S. Green Building Council through its local branch offered a bridge between city government and the green building industry. 123

The composition of the Task Force project indicates its scope and breadth. The project was overseen by nine Technical Committees, a Steering Committee, and an Industry Advisory Committee. The Technical Committee members were mainly building design professionals including architects and landscape architects, engineers, lighting and interior designers, construction experts, representatives from city agencies. 124 The Industry Advisory Committee offered input on the practicality of proposals and comprised developers, building owners, contractors, unions, environmental organizations, universities, affordable housing experts, commercial tenants, and representatives from other professional and industry organizations. 125 The Steering Committee included the chair of each Technical Committee and members from the Urban Green Council, the Mayor's Office, the City Council Speaker's Office, and other city offices. 126 Rounding out the contributions by nongovernmental entities, the Task Force was funded by the Mertz Gilmore Foundation and New York Community Trust, with meetings hosted by the Steven L. Newman Real Estate Institute. 127 Further, New York law office Fried, Frank, Harris, Shriver, & Jacobson LLP provided pro bono legal services. 128

As discussed in Part One(C), this process led to 111 Task Force recommendations, and as of April 2015, the City has adopted in whole or part, by legislation or administrative rule, 53 of the recommendations; adopted/implemented proposals include removing zoning and landmarks barriers to alternate energy, permitting use of biofuels and large rooftop installations, improving lighting efficiency

^{121.} U.S. GREEN BUILDING COUNCIL, *supra* note 22.

^{122.} Id.

^{123.} AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY, *supra* note 47.

^{124.} See id.

^{125.} See id.

^{126.} See id.

^{127.} See id.

^{128.} See id.

at apartment buildings and construction sites, studying adaptive resilient strategies to flood and non-flood climate risks, improving storm water management, and developing strategies for increasing water efficiency. 129

The multi-step, multi-sector Task Force process offers one model for how a local government can develop a framework for, and a plan for implementing, green governance: the locality can leverage the resources of non-governmental partners that share a stake in improving urban sustainability and climate resilience. Although at first blush the engagement with private partners might raise delegation concerns, discussed in Part One(A), New York City's process of identifying and adopting green standards and strategies was public. The participation of the non-profit sector and building industry in generating ideas and recommendations supported the standard-setting process but did not alter its public character, where, as here, municipal government retained stewardship over the process. Given the enormity of the challenges facing cities, especially coastal cities, in addressing climate-change-enhanced risks of severe weather, and given evidence that these risks will have greater impact on vulnerable communities, ¹³⁰ a multi-sector approach to local green governance can provide crucial support to municipalities in managing and adapting to environmental risk.

B. Transnational Urban Networks and Climate Change

Networks of cities across jurisdictional lines can similarly enhance the progress of local green governance by providing a platform for cities facing shared environmental risks to develop and

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^{129.} See GCTF Enacted Proposals, supra note 15; see also Green Codes Proposal Tracker, NYC Green Codes Proposal Tracker, URBAN GREEN UNITED STATES GREEN BUILDING COUNCIL CHAPTER, (2016), http://urbangreencouncil.org/proposalstatus.

^{130.} CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS, *supra* note 1, at 13 (including the following finding:

SPM 2.3 Future risks and impacts caused by a changing climate Climate change will amplify existing risks and create new risks for natural and human systems. Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development.).

exchange knowledge and best practices.¹³¹ Urban networks have long served the purpose of mutual aid and engagement,¹³² while functioning independently of other vertical levels of government to collectively formulate strategies and policy for a range of shared objectives.¹³³ Given cities' increasing vulnerability to climate-change hazards, cities have formed a variety of cross-border networks to develop resilient approaches for addressing those hazards. Recognizing the transnational scope of climate-change risks, typically these networks function with reference to international conventions, including the Intergovernmental Panel on Climate Change¹³⁴ and the UN Framework Convention on Climate Change.¹³⁵

These multiple and sometimes overlapping interurban networks offer greater scope for municipal governments to be proactive in piloting green approaches to building and infrastructural resilience. Representative networks include C40 Cities Climate Leadership Group, a network of the world's largest cities committed to developing metrics and best practices to reduce greenhouse gas emissions; 136 Resilient Cities: Global Forum on Resilience and Adaptation, 137

^{131.} See, e.g., Andrea McArdle, Lessons for New York: Comparative Urban Governance and the Challenge of Climate Change, 42 FORDHAM URB. L.J. 91 (2014) (presenting original ideas now further discussed).

^{132.} See generally Margrit Schulte Beerbühl, Networks of the Hanseatic League, EGO: EUR. HIST. ONLINE 1 (2012) (analyzing the medieval Hanseatic League as a network of cities bound together in a mercantile, information-sharing, and security-enhancing alliance).

^{133.} Urban networks have been described, in the lexicon of geography, as "horizontal interlinkages among geographically dispersed nodal points." NEIL BRENNER, NEW STATE SPACES: URBAN GOVERNANCE AND THE RESCALING OF STATEHOOD 292-93 (1st ed. 2004).

^{134.} INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, http://www.ipcc.ch/(last visited Feb. 11, 2017).

^{135.} UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/2860.php (last visited Feb. 15, 2017).

^{136.} C40 Blog, Roadmaps for Successful Climate Action: C40 Cities Share 100 Case Studies Proven to Work, C40 CITIES (Mar. 1, 2016), http://www.c40.org/blog_posts/roadmaps-for-successful-climate-action-c40-cities-share-100-case-studies-proven-to-work (discussing Good Practice Guides that offer strategies for urban leaders to reduce carbon emissions and other climate-change strategies).

^{137.} Resilient Cities 2016: 7th Global Forum on Urban Resilience and Adaptation, UNITED NATIONS OFFICE FOR DISASTER RISK REDUCTION, https://www.unisdr.org/we/inform/events/47023.

comprising ICLEI—Local Governments for Sustainability, World Mayors Council on Climate Change, and the City of Bonn, which disseminates knowledge on urban-centered climate risk issues;¹³⁸ the Rockefeller Foundation resilience projects, promoting development of resilient systems in cities of varying sizes and geographies;¹³⁹ and the Compact of Mayors, introduced in 2014 at the U.N. Climate Summit,¹⁴⁰ as a collaboration of existing networks and international organizations (then UN Secretary-General Ban Ki-moon, U.N. Secretary-General's Special Envoy for Cities and Climate Change Michael R. Bloomberg, ICLEI-Local Governments for Sustainability, C40 Cities Climate Leadership Group, United Cities and Local Governments, and the United Nations Human Settlements Programme (UN-Habitat))¹⁴¹ that are engaged in collecting and normalizing

The Compact of Mayors is an agreement by city networks—and then by their members—to undertake a transparent and supportive approach to reduce city-level emissions, to reduce vulnerability and to enhance resilience to climate change, in a consistent and complimentary (sic) manner to national level climate protection efforts. The Compact of Mayors builds on the ongoing efforts of Mayors that increasingly set ambitious, voluntary city climate commitments or targets for greenhouse gas (GHG) emissions reduction and to address climate risk; report on progress towards achieving those targets by meeting robust, rigorous and consistent reporting standards (as established through City Networks); and make that information publically (sic) available by reporting through a recognized city platform.

^{138.} See id.

^{139.} See, e.g., 100 Resilient Cities, THE ROCKEFELLER FOUNDATION, https://www.rockefellerfoundation.org/our-work/initiatives/100-resilient-cities/ (providing financial and technical support and access to expert knowledge to develop urban resilience including creation of a Chief Resilience Officer position within participating local governments); Asian Cities Climate Change Resilience Network, THE ROCKEFELLER FOUNDATION, https://www.rockefellerfoundation.org/our-work/initiatives/asian-cities-climate-change-resilience-network/ (supporting Asian cities in resilience planning to respond to climate change risks).

^{140.} COMPACT OF MAYORS, http://www.compactofmayors.org/ (last visited Feb. 15, 2017).

^{141.} Compact of Mayors, *Compact of Mayors Full Guide* 4 (2015). The Compact of Mayors issued a statement of its commitments in September 2014 including the following:

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measurement and publicly accessible reporting of local climate change action data. 142

Transnational urban networks can serve as a basis for comparative urban green governance.¹⁴³ Networked cities are linked by a shared need to reduce their carbon footprint and build resilient systems to withstand heightened climate risk.¹⁴⁴ By amassing knowledge, setting targets and goals, and promoting innovation and problem solving relating to climate change adaptation, individual cities within networks contribute to the creation of green norms and standards.¹⁴⁵ Networks enable member cities to circulate knowledge, standards, and behaviors horizontally, across borders, creating a basis for shared green governance.¹⁴⁶

5. CONCLUSION: ENCAPSULATING LOCAL GREEN GOVERNANCE

The growing levels of risk presented by climate change call for a comprehensive, multi-sector response to mitigate the effects of greenhouse gas emissions and to adapt to changing world climate conditions. Municipalities are a crucial part of that response, given the immediate impact of severe weather events on municipal populations, structures, and infrastructure, and the immediate responsibility that municipalities have for ensuring public health and safety within municipal borders. Some commentators question the efficacy of local government action, on the grounds that local governments lack adequate resources¹⁴⁷ and insufficient breadth of perspective¹⁴⁸ to address the enormity of the challenges. These concerns have led

^{142.} About, COMPACT OF MAYORS, http://www.compactofmayors.org/history/.

^{143.} See McArdle, supra note 131, at 113-19 (arguing that transnational urban networks that establish resilience standards in response to the effects of climate offer a framework for "horizontal" governance of shared norms).

^{144.} Networks, C40 CITIES, http://www.c40.org/networks.

^{145.} About, COMPACT OF MAYORS, http://www.compactofmayors.org/history/.

^{146.} The Power of C40 Cities, C40 CITIES, http://www.c40.org/cities.

^{147.} Carl J. Circo, Using Mandates and Incentives to Promote Sustainable Construction and Green Building Projects in the Private Sector: A Call for More State Land Use Policy Initiatives, 112 PENN St. L. Rev. 731, 766 (2008); see also Sink or Swim, supra note 43, at 505-08.

^{148.} See Circo, supra note 148, at 766.

commentators variously to call for more regional coordination¹⁴⁹ of local efforts, state-level development of green building standards, ¹⁵⁰ and national standards and measurements. ¹⁵¹

To be sure, municipal governments cannot act in a vacuum. A report released by the C40 Cities Climate Leadership Group, *Unlocking Climate Action in Megacities*, ¹⁵² enumerated six specific challenges facing cities as they pursue climate change initiatives, highlighting the same need for improved coordination and resources that others have noted. The challenges comprise a lack of coordinated effort among levels of government, and, relatedly, the need for a more coherent and efficient approach to managing climate-change projects within city-level agencies; the need to gather and assess data in support of climate change initiatives; the need for improved communication about green projects to key audiences; insufficient collaboration with the private sector; and the need for additional project funding. ¹⁵³

In a similar vein, the findings of the 5th Assessment Report highlight the need for a multi-scalar effort, from international to sub-national, to formulate policies to achieve effective mitigation and adaptation.¹⁵⁴

^{149.} See Sink or Swim, supra note 43, at 502-04 (arguing that central cities and surrounding suburban municipalities need to develop a more integrated approach to climate change mitigation and adaptation planning).

^{150.} See Circo, supra note 148, at 774-77, 780-81, 782 (arguing for state governments to lead planning for sustainable building practices to accomplish greater uniformity and prioritize broad-based public concerns, while ensuring local input).

^{151.} Leigh Kellett Fletcher, *Green Construction Costs and Benefits: Is National Regulation Warranted?*, 24 SUM NAT. RESOURCES & ENV'T 18, 23-24 (2009) (calling for federal mandates for state and local government reduction of greenhouse gas emissions, federally set measurements of sustainability, energy and water efficiency, and indoor air quality, and a federal ban on local or private restriction on use of sustainable technologies on aesthetic grounds).

^{152.} C40 CITIES CLIMATE LEADERSHIP GROUP, UNLOCKING CLIMATE ACTION IN MEGACITIES 4 (2016).

^{153.} See id. at 9, see also Jen Kinney, City Reps Talk 6 Big Barriers to Taking Climate Action, NEXT CITY (May 6, 2016), https://nextcity.org/daily/entry/barriers-cities-climate-action [http://perma.cc/M84X-89KQ].

^{154.} Climate Change 2014 Synthesis Report Summary for Policymakers, supra note 1, at 29:

SPM 4.4 Policy approaches for adaptation and mitigation, technology and finance

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The report recognizes that decision-making about climate change draws on a range of considerations, including "governance, ethical dimensions, equity, value judgments, economic assessments and diverse perceptions and responses to risk and uncertainty."155

Despite the complexity of the undertaking, the leadership role that local governments can play is undeniable. The 5th Assessment Report points to "critical" contributions that local governments and the private sector can make toward adaptation, given their capacity to "scale up" adaptation at the community and household level, and in civil society, and in directing information about risk and financing. 156 Further, the contributions of multi-sector collaborations and networks to local green governance discussed in Part Four address a number of the challenges noted in the C40 Cities report (need for more data gathering and assessment, collaboration with the private sector, improved communication, and increased funding). 157

Local green governance is driven by local conditions and the urgent need to reduce greenhouse gas emissions as localities experience the dramatic effects of climate change, from drought to inundation. Broadly conceived, local green governance involves local institutions enacting legislation, promulgating administrative regulations, engaging in advocacy, and participating in networks and other collaborations that contribute to setting energy-efficient and resilient standards for buildings and land use. However, the concept of local green governance has reference points beyond local government institutions. Local standard setting implicates other levels of government, which may act to restrict local action, to support and

Effective adaptation and mitigation responses will depend on policies and measures across multiple scales: international, regional, national and subnational. Policies across all scales supporting technology development, diffusion and transfer, as well as finance for responses to climate change, can complement and enhance the effectiveness of policies that directly promote adaptation and mitigation.

Id.

^{155.} CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS, supra note 1, at 17.

^{156.} CLIMATE CHANGE 2014 SYNTHESIS REPORT SUMMARY FOR POLICYMAKERS, supra note 1, at 29. The report noted the existence of "medium evidence" and "high agreement" for these findings.

^{157.} See C40 CITIES CLIMATE LEADERSHIP GROUP, UNLOCKING CLIMATE ACTION IN MEGACITIES, supra note 152.

reinforce it, or to serve as a baseline above which more robust local action may proceed. Local governance also has benefited from collaboration with non-governmental bodies, including the business sector, environmental advocacy organizations, private philanthropy, and UN bodies.

Informed by local knowledge, tempered by local vulnerability, municipal green measures addressing climate change serve a function that cannot be replicated by other sectors or levels of government. Pluralistic, contextual, and adaptive, local green governance is a critical component of the multi-scalar, multi-sector set of responses needed to combat climate-related risk. As the magnitude of that risk increases, the relevance and necessity of local governmental action are increasingly compelling, and their urgency beyond debate.