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OVERVIEW AND LEGAL ANALYSIS OF MODEL LEGISLATION MANDATING GREEN BUILDING CONSTRUCTION

This memorandum addresses the third recommendation under the heading “Local Governments” in section VIII.C in chapter 10 of *Legal Pathways to Deep Decarbonization in the United States* (p. 274): “[l]ocal legislative bodies should mandate that new commercial buildings over a specified size achieve the equivalent of at least the latest version of LEED Gold Certification.”

Background for the Ordinance

Buildings use large amounts of energy. As a result, they are responsible for a significant share of greenhouse gas emissions. Globally, buildings accounted for approximately 30% of total energy use and 28% of total greenhouse gas emissions in 2019.¹ Similarly, based on 2022 data, commercial and residential buildings accounted for approximately 29% of total energy use in the United States.² This translated into about 31% of the United States’ overall greenhouse gas emissions.³ Accordingly, reducing energy use in the building sector is a critical step to reducing greenhouse gas emissions. Given their long lifespan (50-87 years for commercial buildings⁴), it is especially important for new buildings to reduce energy use and resulting emissions because they will have an impact on the environment for decades to come.

Several “green” building rating programs have been developed to promote energy efficiency and environmental sustainability in buildings. These voluntary programs typically

¹ United Nations Environment Program (UNEP), 2020 Global Status Report for Buildings and Construction (2020), https://wedocs.unep.org/bitstream/handle/20.500.11822/34572/GSR_ES.pdf.

² U.S. Energy Information Administration (EIA), *Frequently Asked Questions—How Much Energy Is Consumed in U.S. Residential and Commercial Buildings?*, <http://www.eia.gov/tools/faqs/faq.cfm?id=86&t=1> (last updated November 28, 2023).

³ Residential uses accounted for 15.3% and commercial uses accounted for 15.6% of the U.S.’s greenhouse gas emissions in 2022. See United States Environmental Protection Agency, Draft Inventory of Greenhouse Gas Emissions and Sinks: 1990-2022 at 2-39 (2024), <https://www.epa.gov/system/files/documents/2024-02/us-ghg-inventory-2024-main-text.pdf>.

⁴ Jennifer O’Connor, Survey on Actual Service Lives for North American Buildings, Presentation at Woodframe Housing Durability and Disaster Issues Conference, 15 (Oct. 2004), https://cwc.ca/wp-content/uploads/2013/12/DurabilityService_Life_E.pdf.

evaluate buildings on a variety of criteria and rate them on their environmental impacts. Although energy efficiency can be a major focus of these programs, they often address sustainability issues not directly related to carbon emissions. Leadership in Environmental and Energy Design (“LEED”) sponsored by the United States Green Building Council (“USGBC”) is the most widely recognized program. The USGBC describes LEED as an “independent verification of a building or neighborhood’s green features, allowing for the design, construction, operation and maintenance of resource-efficient, high-performing, healthy, cost-effective buildings.”⁵ Projects can obtain LEED certification by incorporating specific features into building design that promote sustainability.

LEED provides several categories of credits such as water efficiency, energy efficiency, materials use, and waste, among others. Each category offers credits for design features that support the goals of the category. Thirty-five percent of LEED credits relate to climate change, 20% to impacts on human health, 15% to water resources, 10% to biodiversity, 10% to the green economy and 5% concern community and natural resources.⁶ Points can be earned by complying with the requirements of the credits. Some categories include prerequisites that must be met to earn points in that category. Depending on the number of points that a project earns, it can be certified at one of four levels: Certified, Silver, Gold, or Platinum. Since LEED offers multiple categories and ways to obtain credits within those categories, a building developer has flexibility and options to reach its desired level of certification, some of which options do not involve energy reduction and are not directly focused on reducing greenhouse gas emissions.

Another, less commonly used, rating program (at least in the United States) is sponsored by the Green Building Initiative (“GBI”) and is known as Green Globes. Green Globes works in similar fashion to LEED and, like LEED, has four levels of certification ranging from 1 to 4 Green Globes.⁷

LEED and Green Globes provide a variety of rating systems applicable to different project types. For example, LEED has an option for new construction and major renovation but also more specialized options for data centers, retail, hospitality, warehouses and other special uses. LEED also provides a system for interior design and construction, building operations and maintenance.

⁵United States Green Building Council (USGBC), About LEED- Brochure, <https://www.usgbc.org/resources/about-leed-brochure> (last visited February 27, 2024).

⁶ United States Green Building Council (USGBC), LEED Rating System, <https://www.usgbc.org/leed> (last visited February 27, 2024).

⁷ The Green Building Initiative, Green Globes Certification, <https://thegbi.org/greenglobes/> (last visited February 27, 2024).

Features of the Model Ordinance

The model ordinance would require that new non-residential and certain multifamily⁸ buildings with a gross floor area above 10,000 sf (or other size chosen by the municipality) be constructed⁹ to a standard that could achieve LEED Gold certification, Green Globe certification level 3 or a comparable level from another rating program approved by the municipality. It also applies to substantial alteration or rehabilitation of buildings as well as additions exceeding the size threshold. Alterations are considered substantial if construction costs exceed 50% of the assessed value of the existing building. Although the ordinance incorporates the standards of the rating program, the municipality oversees compliance and enforcement. Thus, the building developer does not need to obtain certification under the rating program. The project only must be “certifiable” rather than certified.

The building developer must engage a qualified architect or engineer (called a Green Building Professional) throughout the design and development of the project to ensure that it is designed to meet the requirements of the ordinance and achieve the necessary level of certification. The municipality must appoint a Green Building Compliance Official, who may be an employee in the building or planning department with training or experience in sustainability, to oversee implementation of the ordinance.¹⁰ The municipality may not issue a building permit until satisfied that the required standard will be met. Similar requirements apply prior to issuance of the certificate of occupancy.

The ordinance allows for some flexibility by authorizing waivers for certain historic buildings and in situations where compliance with the Green Building program requirements poses a substantial hardship. Aggrieved parties may appeal decisions of the Green Building Compliance Official. If the ordinance is incorporated into an existing zoning or building code, then the municipality may want to use the waiver or variance process already in place in that code, and the appeal process within that existing code should be followed. For a standalone ordinance, an appropriate appellate body will need to be identified. This could be a zoning board

⁸ The ordinance defines multifamily buildings as residential structures with three or more dwelling units and four or more stories.

⁹ The ordinance does not address green building compliance after the building is built and operational. The intent is only to ensure that buildings are developed with sustainable design and development practices. The ordinance does not attempt to confirm that actual long-term operations are energy-efficient or otherwise sustainable.

¹⁰ The ordinance leaves the parameters of training open so that the municipality can tailor it according to the capacity and resources available. Notably, accreditation is not required. If a municipality decides that training requires the Green Building Compliance Official to be a LEED accredited professional, the official would need to pass the LEED exam (which can be completed online) and complete 30 hours of continuing education credits every two years (which can be satisfied via online continuing education courses, many of which overlap with continuing education courses required for maintaining other design licenses). However, the municipality may instead determine that accreditation is not required and that taking a few continuing education courses will suffice. In any event, a Green Building Professional retained by the developer must certify that the project is being designed to meet the requirements of the ordinance.

of appeals or some similar entity. The model ordinance provides for a delayed effective date so that projects that are in advanced stages of design do not incur costs and delay to re-design.

Issues to Consider

Authority to Adopt and Form of Ordinance

Authority to adopt the model ordinance will vary from state to state. Municipalities in states with robust home rule powers have broad authority to adopt public health and welfare legislation, including environmental matters. Unless preempted¹¹, they are likely to find little legal impediment to adopting the model ordinance. In other states, municipalities may only be able to act when expressly authorized by the state legislature. This authority might be found in zoning or land use enabling legislation if interpreted broadly enough to include environmental protection. Elsewhere, statutes specifically authorizing local environmental regulation may exist. Accordingly, policymakers should check on their municipality's authority to adopt the model ordinance.

The model is drafted as a standalone ordinance, but could be adapted for inclusion in a municipality's existing zoning or building code. If incorporated into an existing code, the municipality may want to use definitions for terms such as "Project" and "Gross Floor Area" from the existing code and employ its waiver and appeal processes instead of those in the model ordinance. The choice between independent legislation and incorporation may depend in part on the legal framework of the particular state. Policymakers should confirm any restrictions applicable in their state.

Preemption

Preemption of a local ordinance generally occurs when (i) a state or federal law expressly precludes the local requirements, (ii) the local law conflicts with a state or federal provision in such a manner that both the local and higher-level law cannot be complied with simultaneously, or (iii) a federal or state law covers the entire "field," or subject area, of the regulation.¹² State preemption, in particular, may be a concern for the model ordinance.

State preemption can occur if a building code applies uniformly throughout the state and precludes local variations. Even in home rule jurisdictions, state law may restrict municipal ability to adopt building codes in lieu of or in addition to a uniform state code. In other states, local building codes are the norm. Accordingly, policymakers should check whether their state's law prohibits local building codes.

¹¹ See discussion below.

¹² These categories vary somewhat from state to state.

Municipalities in states with broad building code preemption might nevertheless be able to use zoning to impose, or at least incentivize, LEED or other green building requirements. For example, special permit or design review conditions mandating green building features potentially could be upheld if not inconsistent with the state building code or if they address matters not covered by the code. A special permit or design review process also could be upheld if viewed as an incentive for better-than-code construction rather than a mandate to exceed the state-level code. Alternatively, a municipal zoning ordinance could incentivize green building construction by providing development bonuses to projects choosing to comply with LEED. These could include a greater floor area ratio, height or density than otherwise would be allowed by zoning.

Some building electrification laws have been challenged on federal preemption grounds. The Ninth Circuit Court of Appeals struck down Berkeley, California’s ban on natural gas connections in new buildings¹³ as preempted by the Federal Energy Policy and Conservation Act (“EPCA”).¹⁴ That statute regulates the energy efficiency of numerous consumer and industrial appliances (“covered products”) and, except in limited circumstances, prohibits more stringent state standards. Similar challenges to natural gas bans are pending in New York State¹⁵ and EPCA preemption claims have been brought against other municipal and state green building regulations.¹⁶ EPCA preemption, however, should not be a concern for the model ordinance. The model ordinance offers choices among green building rating programs which provide a wide variety of options to achieve certification. The ordinance does not require the use of covered products exceeding federal standards. Although energy credits are a significant portion of LEED, many credits are available from other categories. As a result, electrification is not required to comply with the ordinance. Thus, it is unlikely that the model ordinance would be preempted by EPCA even were the courts to interpret that statute broadly.

Thresholds

Green building practices can impose construction costs exceeding those for standard construction as well as new administrative burdens to implement the system. USGBC estimates that the documentation for LEED credits can result in an extra \$20,000-\$60,000 per project in

¹³ *California Restaurant Association v. City of Berkeley*, 5 F. 4th 1045 (9th Cir. 2023), reh’g. en banc denied and op. amended by 89 F. 4th 1094 (9th Cir. 2024).

¹⁴ Codified principally at 42 USC §6291 et seq.

¹⁵ *Mulhern Gas Co. v. Rodriguez*, No. 1:23 – cv - 01267 (N.D.N.Y. filed Oct. 12, 2023).

¹⁶ See e.g., *Colorado Apartment Association v. Ryan*, No. 1:24 – cv - 01093 (D. Colo. filed Apr. 22, 2024) (challenge to Colorado and Denver building performance standards allegedly preempted by EPCA); *Riviera v. Anderson*, No. 2:24 – cv - 00677 (W. D. Wash. filed May 15, 2024) (challenge to Washington State energy code requirements as preempted under EPCA).

administrative and consultant fees.¹⁷ A study in 2004 of LEED-related costs for federal government building projects concluded that, since LEED allows for a variety of strategies to earn the same individual LEED credit, overall construction cost premiums are minor for federal projects that take advantage of no cost or low cost credit opportunities. This conclusion applied even at higher LEED rating levels.¹⁸ Cost premiums from Green Building Rating Programs should be weighed against financial benefits for the owner. Green buildings typically result in lower operating costs which can balance out upfront costs associated with development. Moreover, certification under LEED or similar programs can increase a building's value, and green buildings often command higher rents.

To ameliorate burdens on smaller projects, a size threshold can make sense. There appears to be no rule of thumb for identifying an appropriate threshold. Many communities with green building programs use 25,000 square feet as the threshold for private development. Others range from a high of 50,000 square feet to as low as 7,000 square feet. Starting in 2024, Washington D.C. adjusted its threshold down from 25,000 square feet to 10,000 square feet for private development. In determining what threshold is appropriate, a municipality should consider the impact of added costs on viability of smaller buildings, as well as administrative burdens imposed on municipal staff to oversee the program. Another consideration is the likelihood of opposition from building owners and developers. The local building community's familiarity with green building programs could affect their view of the ordinance and, in turn, inform what threshold is chosen. Note that municipalities that decide to put green building requirements into their zoning code rather than a standalone ordinance, could, instead of a size threshold, choose to make the program applicable whenever zoning requires a special permit, site plan review or some similar zoning approval.

Non-Delegation

Municipalities may not relinquish their legislative functions to private entities. The model ordinance does not run afoul of this stricture. Although it uses LEED and Green Globes as standards for building construction, the ordinance does not relinquish municipal control over the local requirements. The standards of the rating program are adopted, but implementation is handled by the municipality, and compliance is judged by local officials rather than the private

¹⁷ See RTS, What are the Costs of Getting LEED Certification (2022), <https://www.rts.com/blog/leed-certification-cost/>, and Facilities Net, Measuring the Cost to Become LEED Certified, <https://www.facilitiesnet.com/green/article/Measuring-The-Cost-To-Become-LEED-Certified--10057#:~:text=Administration%20of%20the%20LEED%20certification%20process%20and%20documentation%20of%20LEED,complexity%20and%20project%20team%20experience> (last visited February 27, 2024).

¹⁸ Steven Winter Associates, Inc., U.S. General Services Administration (GSA) LEED Cost Study (2004), Page 7, <https://archive.epa.gov/greenbuilding/web/pdf/gsaleed.pdf>.

entity. Moreover, program certification is not required.¹⁹ Rather, the building only needs to be “certifiable”, i.e., designed to meet the rating program criteria for certification. Furthermore, the ordinance adopts a specific version of the rating program, i.e., the one in effect at the time the ordinance is enacted. Updates to the rating program developed by USGBC or GBI are not automatically incorporated into the ordinance, which could be an improper delegation of governmental authority to a private entity. Instead, the municipality, through its Green Building Compliance Official (or legislatively through an amended ordinance), decides whether to allow the use of updated versions of the rating program. Municipalities should review their own requirements relating to non-delegation, whether imposed locally or through state law, to determine whether updated versions may be handled administratively by the Green Building Compliance Official or whether they require legislative action by the municipal council.

Antitrust

Although exemptions exist for government activities, municipal actions that harm competition can raise antitrust concerns. In particular, antitrust issues may arise when a municipal ordinance favors one privately run rating program over another and provides the program sponsor responsibility to enforce compliance with the ordinance.²⁰ The rating program can also trigger antitrust concerns if it requires a particular brand of product. For example, a LEED credit relating to sustainable forest products previously only allowed the use of wood that had been certified by the Forest Stewardship Council. By favoring one class of wood producers over another, this provision could have resulted in anticompetitive effects.²¹ In 2016, USGBC

¹⁹ If the municipality wishes to incentivize actual certification, it could include provisions that reduce permitting fees, provide for expedited permitting, or allow the developer to increase density, floor area ratio or height of a project if it actually obtains certification by the applicable green building rating program.

²⁰ See generally, Lester D. Steinman, *Mandating Compliance with Third-Party Green Building Standards: Red Flags for Local Governments*, NYSBA/MLRS Municipal Lawyer, Summer 2009, Vol. 23, No. 3, p. 15-16, <https://www.mccarthyfingar.com/wp-content/uploads/2019/11/20150423054059-Steinman-Mandating-Compliance-With-Third-Party-Building-Standards-Red-Flags-for-Local-Governments.pdf>; Jessica Alfano, *Can We (Anti)Trust LEED? An Analysis of the Antitrust Implications for the Green Building Movement*, Boston College Environmental Affairs Law Review, 41, 442-52 (2014). See also, generally, *Allied Tube and Conduit Corp. v. Indian Head*, 486 U.S. 492 (1988) (The Court found that Allied Tube (a private company) improperly used its power in the standard setting process and violated antitrust laws by colluding with decision makers of the National Fire Protection Association (a private standard setting organization that sets the National Electrical Code), even though the resulting standard was not anti-competitive).

In 2010, Henry Gifford, a consultant on energy efficiency in buildings, brought a claim under the Sherman Antitrust Act against USGBC. *Gifford v. USGBC*, No. 10 Civ. 7747, 2011 (S.D.N.Y. Aug. 16, 2011). Mr. Gifford eventually chose to drop the claim under the Sherman Antitrust Act, but at least one author speculated this is because Mr. Gifford was not a direct competitor of USGBC and it would be hard to prove a conspiracy by USGBC to monopolize the energy efficiency industry. In different circumstances, there could be a stronger claim under the Sherman Antitrust Act. See Colin W. Maguire, *The First True Case of ‘LEED-igation’: The Far-Reaching Impact of Gifford v. United States Green Building Council*, 2 U. Balt. J. Land & Dev. 53, 67-69 (2012).

²¹ See Coalition for Fair Forest Certification, *Complaint to the Federal Trade Commission* dated October 20, 2009, <https://www.greenbuildinglawupdate.com/files/2010/01/FTC-complaint11.pdf>.

updated LEED so that forest products certified by groups other than the Forest Stewardship Council are acceptable.²² The model ordinance avoids antitrust concerns by allowing for the use of multiple rating programs with multiple pathways for compliance and keeping in municipal hands enforcement of the ordinance and decisions whether to adopt amendments and new versions of the rating programs. Thus, while LEED is named expressly in the ordinance, it does not have a monopoly in the jurisdiction.

²² See U.S. Green Building Council, Inc., LEED Addenda Update: April 2016, <https://www.usgbc.org/articles/leed-addenda-update-april-2016>; see also Wicker Applauds USGBC Decision to Include U.S. Forest Products in LEED Rating System, Press Release April 6, 2016; <https://www.wicker.senate.gov/2016/4/wicker-applauds-usgbc-decision-to-include-u-s-forest-products-in-leed-rating-system>.