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NOTES

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A. Paige Reber

INTRODUCTION TO THE LEED GREEN BUILDING RATING SYSTEM

Green is “the new black.” In various aspects of society, people are turning their focus toward how to fulfill our current energy and infrastructure needs while simultaneously protecting the environment from future harm. This is especially true in the design and construction industries, where the emphasis is on “sustainable development.” “[S]ustainable development meets the needs of the present without compromising the ability of the future generation to meet their own needs.” In fact, this “green” trend has become so prevalent that President Barack Obama promises to spend $150 billion over ten years to create five million new “green-collar jobs,” including jobs in green building, energy efficiency, and sustainable development. He will finance at least some of this spending through the recently passed federal stimulus bill, the American Recovery and

1 J.D. expected, May 2010, University of Kentucky College of Law; B.S.B.E. in Economics & B.A. in Political Science, summa cum laude, May 2007, University of Kentucky. The author would like to thank her husband, Jarred Reber, for his constant support and encouragement. The author would also like to thank Professor Rutheford B Campbell, Jr., for his helpful comments and criticisms. The opinions expressed herein are solely those of the author.


Reinvestment Act of 2009, signed into law on February 17, 2009. The Act allocated these "green" funds to the U.S. General Services Administration (GSA), whose "standing environmental policy . . . is to eliminate all damage to the environment resulting from [GSA's] operations." This is only one of the most recent major steps in the national trend to "go green."

In an effort to further promote sustainable development, the United States Green Building Council (USGBC) was formed as "a 501(c)(3) non-profit community of leaders working to make green buildings available to everyone within a generation." The USGBC developed the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, which "encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria." LEED was created to "transform[] the building market." Along with this desired ecologically-friendly transformation, however, come numerous costs and uncertainties. Vast amounts of paperwork, increased site monitoring, and greater transaction costs associated with group cooperation could complicate the short-term certification process. With the added costs and time commitments necessary to achieve certification under the system, many owners, designers, and builders may become discouraged and opt out of this green building initiative.

To counter this dilemma and encourage green building practices, many proponents of the green building standards are pushing for legislative mandates at the various levels of government. Part I of this Note

13 See, e.g., Carl J. Circo, Using Mandates and Incentives to Promote Sustainable Construction
explores current green building standards, as well as existing federal, state, and local regulations of sustainable development and green building projects. Part II discusses the desirability of such government regulation of public sector projects. Part III analyzes the pros and cons of regulations mandating environmental sustainability in the design/build process of private sector developments. Part IV examines the current government perspective on green building and long-term sustainability in light of our country's poor economic climate and analyzes the promotion of green building in the American Recovery and Reinvestment Act of 2009. While these sections demonstrate that state and local sustainable development mandates for public and publicly-funded buildings are desirable, this Note ultimately proposes that no such mandates should be applied to private sector building because various other incentives would encourage green building without intruding upon market forces. Although many proponents of green building standards have argued that private sector mandates are essential to the success of the green building initiative, this Note argues, instead, that a combination of government incentives and market forces will be sufficient to encourage green building in the private sector until the uncertainties surrounding the true long-term effects of sustainability practices are determined.

I. CURRENT GREEN BUILDING STANDARDS AND GOVERNMENT REGULATIONS

A. LEED and Other Green Building Standards

Currently, no universal regulations exist to mandate sustainable building practices in either the public or private sector. Instead, a handful of green building standards have been established as guidelines for federal government departments and agencies, state and local governments, and the design and construction industries. The most prominent set of guidelines is the USGBC's LEED Green Building Rating System. The USGBC created the LEED system in order "to bring uniformity to the American green building movement by establishing a common standard of measurement for green building elements, promoting integrated,
whole-building design practices, recognizing environmental leadership in the building industry, stimulating green competition, raising consumer awareness of green building benefits, and transforming the building market." The system is, in short, "a voluntary national standard in which construction and renovation projects earn credits toward certification as sustainable buildings."

Over the past few years, LEED has become "the dominant green building strategy in the country," and it is "the most widely accepted green building certification program." For new construction projects and existing building renovations, there are currently four levels of LEED certification: Certified, Silver, Gold, and Platinum. The LEED rating system is organized into seven main topics: Sustainable Development, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design, and Regional Priority. LEED certification can be obtained by achieving credits under each topic, with points allocated among credits "based on the potential environmental impacts and human benefits of each credit with respect to a set of impact categories." These impact categories "are defined as the environmental or human effect of the design, construction, operation, and maintenance of the building." Through this "credit weighting" process, LEED participants can earn up to 100 base points, with Innovation in Design and Regional Priority credits providing "opportunities for up to ten bonus points."

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18 Del Percio, supra note 11, at 121.
20 Circo, supra note 13, at 735.
23 See NEW CONSTRUCTION, supra note 22, at xiii.
24 Id.
25 Id. at xii.
26 Id.
27 Id.
points are required to achieve the highest level of certification.\textsuperscript{28}

In addition to LEED, the U.S. Green Building Initiative has established Green Globes.\textsuperscript{29} Green Globes "is a revolutionary building environmental design and management tool" that "delivers an online assessment protocol, rating system and guidance for green building design, operation and management."\textsuperscript{30} Like LEED, Green Globes "provides market recognition of a building's environmental attributes through third-party verification."\textsuperscript{31}

\textbf{B. Examples of Federal Government Regulations}

While broad federal mandates have not been enacted, some government departments and agencies have established green building mandates for any construction that takes place within that department or agency.\textsuperscript{32} For example, the United States Department of Agriculture issued a departmental regulation requiring "new construction or major renovation of covered facilities to earn a minimum of LEED Silver certification."\textsuperscript{33} Additionally, former Secretary of Energy Samuel Bodman issued a memorandum to the Department of Energy leadership ordering that all new Department buildings costing $5,000,000 or more must earn LEED Gold certification in adherence with Executive Order 13423.\textsuperscript{34}

\textbf{C. Examples of State Government Regulations}

In the absence of federal regulation of green building, many states have passed legislation mandating that entities incorporate LEED or equivalent green building standards into new or existing buildings.\textsuperscript{35} Other states have adopted only aspirational goals.\textsuperscript{36} State mandates typically apply only to public sector projects.\textsuperscript{37} State regulations encouraging, but

\begin{itemize}
\item \textsuperscript{28} Id. at xiii.
\item \textsuperscript{29} See What is Green Globes?, http://www.greenglobes.com/about.asp (last visited Jan. 6, 2010).
\item \textsuperscript{30} Green Globes, http://www.greenglobes.com (last visited Jan. 6, 2010).
\item \textsuperscript{31} Id.
\item \textsuperscript{32} LEED PUBLIC POLICIES, supra note 15, at 3–7.
\item \textsuperscript{33} Id. at 3–4 (citing U.S. Department of Agriculture Departmental Regulation No. 5500–001 (June 19, 2006)).
\item \textsuperscript{34} Id. at 4 (citing Exec. Order No. 13,423, 72 Fed. Reg. 3919 (Jan. 24, 2007)).
\item \textsuperscript{35} See Michael B. Gerrard & J. Cullen Howe, Global Climate Change: Legal Summary, in GLOBAL WARMING: CLIMATE CHANGE AND THE LAW 139, 168 (2009); see generally LEED PUBLIC POLICIES, supra note 15, at 7–19 (listing various state initiatives).
\item \textsuperscript{36} See Gerrard & Howe, supra note 35, at 27–32; see generally LEED PUBLIC POLICIES, supra note 15, at 7–19 (listing various state initiatives).
\item \textsuperscript{37} See Shannon D. Sentman et al., A Climate for Change: Green Building Policies, Programs, and Incentives, J. GREEN BUILDING, Spring 2008, at 46, 53.
\end{itemize}
not mandating, green building practices apply to the private sector as well. Encouragement often comes in the form of incentives such as “tax credits, financial grants, streamlined government permitting processes, and exemptions or relaxations of zoning restrictions and other laws.”

Through the enactment of Senate Bill 581 in 2007, the state of North Carolina allows “cities and counties to encourage green building practices in their jurisdictions through the use of reduced permitting fees or partial rebates for construction projects that achieve LEED certification or certification from other rating systems.” This authorization is codified at N.C. Gen. Stat. § 153A-340. In the Commonwealth of Kentucky, Governor Steve Beshear signed Kentucky House Bill 2 into law on April 24, 2008, “requiring all new public facilities and renovations using 50% or more of state funding [to] achieve[] LEED certification.” This requirement is now codified at Ky. Rev. Stat § 56.775. In Maryland, the High Performance Building Act was also signed into law on April 24, 2008, “requiring all new public construction and major renovation projects of 7,500 [square feet] or greater, and intended for occupation, to earn LEED Silver certification or two Green Globes.”

Both legislation and executive orders have been implemented to encourage green building practices in Virginia. Virginia House Bill 239 was signed on March 4, 2008. The law declares “energy efficient buildings to be a separate class of taxation from other real property.” It “provides for localities in the Commonwealth to levy equal or lesser taxes on energy efficient buildings, as defined in the code as meeting the performance standards of LEED” or various other sustainability standards. Also, on April 5, 2007, Virginia Governor Tim Kaine signed Executive Order 48, entitled “Energy Efficiency in State Government.” The order “instructs all state agencies and institutions constructing state-owned facilities over

44 LEED PUBLIC POLICIES, supra note 15, at 18.
46 LEED PUBLIC POLICIES, supra note 15, at 18; see Va. CODE ANN. § 58.1-3221.2 (2009).
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5,000 gross square feet in size,” or engaging in “renovations of such buildings valued at 50% of the assessed building value,” to design and construct those buildings “consistent with the energy performance standards at least as stringent as LEED.” Additionally, “the order instructs the Commonwealth to encourage the private sector to adopt energy-efficient building standards by giving preference when leasing facilities for state use to facilities meeting LEED . . . .”

These statewide regulations demonstrate that states are willing to mandate green building practices in the public sector, but they are not yet willing to go as far with private sector developments.

D. Examples of Local Government Regulations

In addition to statewide legislation, many cities and local governments have also implemented regulations relating to green building practices. Unlike state regulations, some local mandates apply to private, as well as public, projects. Still common, however, is the use of incentives, rather than mandates, to encourage green building in the private sector.

In 2007 “the City of Boston added Article 37 to Section 80 of the Boston Zoning Code requiring that all public and private development projects over 50,000 square feet earn either LEED Certified or successful review and approval through Boston Interagency Council Review.” The provision also “directs the City to deny permits and certificates of occupancy to noncompliant projects.” In 2004 “the City of Chicago passed a resolution requiring all new city-funded construction and major renovation projects” to earn LEED certification.

The City of Cincinnati passed provisions that mandate compliance in the public sector, yet only encourage green building in the private sector through tax exemptions. In 2007 “the Cincinnati City Council adopted Ordinance 446-2007 . . . providing an automatic 100% real property tax
exemption of the assessed property value for newly-constructed or rehabilitated commercial or residential properties that earn a minimum of LEED Certified."54 Additionally, "the Cincinnati City Council approved a motion requiring that all new municipal buildings earn LEED Certified"55 and that "existing municipal buildings be renovated following LEED guidelines."56

The regulations of the cities of Boston, Chicago, and Cincinnati illustrate how some local governments are willing to mandate green building practices in both the private and public sectors, while other localities are not yet willing to tie the hands of private sector developers.

II. SHOULD THE GOVERNMENT REGULATE GREEN BUILDING PRACTICES IN THE PUBLIC SECTOR?

As demonstrated in Part I, regulation of public sector building projects at various levels of government is present and growing. This regulation comes in the form of both mandates and incentives. Mandatory regulation of public or publicly-funded building projects is easier to defend than equivalent regulation in the private sector. The justifications and rationales for government regulation of public sector building and a proposed source for such regulation are outlined below.

A. Government Regulation of Public Sector Building is Desirable

Government regulation of public sector building is attractive for many reasons. The government is the protector of the people, entrusted to protect the health and welfare of its citizens. State police powers justify government intervention in the promotion of green buildings.57 For many years, "courts have recognized that public health and welfare objectives, including environmental protection, justify state and local regulations that broadly seek to curb unsustainable land development . . . ."58 Accordingly, governmental entities do, in fact, have the power to regulate green building practices.

57 Circo, supra note 13, at 744.
58 Id. at 745.
Government regulation of the public sector and of publicly-funded building projects is not only justified, but it is also desirable. In addition to the police power justification, government regulation is advantageous because such projects are financed, at least in part, by taxpayer dollars. Because its constituents are a source of the funding, the government must ensure that public projects are promoting the health and welfare of those constituents, now and in the future. Americans elect their government officials because they trust the officials to keep them safe and to spend their tax dollars in the most efficient and beneficial way possible. Green building in public sector projects will ideally promote a better environment and hopefully prove to be a cost-efficient use of government funds.

B. State and Local Governments Are in a Better Position to Regulate Public Sector Building Than the Federal Government

While some government regulation of public building projects is desirable, this is only true at more local levels of government. National mandates on building practices in either the public or private sector are undesirable. While such federal legislation is "theoretically possible in the United States," sweeping national regulations will not be able to match the individual needs of various states and localities. Legal scholar Jonathan H. Adler advocates for localized environmental decision-making as follows:

Most environmental concerns would be best handled at the level at which the problem occurs. Wherever possible, policymakers should decentralize environmental [decision-making] by returning more power and authority to state and local governments.

... Hazardous waste sites impact local communities. Water quality is typically a local or regional concern. Even the impact of urban air pollution is often confined to a given airshed. At the same time, state and local governments are showing themselves willing and able to address many environmental concerns.60

These environmental concerns differ across various regions of the country. The "sobering fact is that environmental quality involves too many intricate, geographically variegated physical and institutional interrelations to be dictated from Washington."61 Consequently, regulation of such

59 King & King, supra note 38, at 450.
61 Id. at 691 (quoting Richard B. Stewart, Pyramids of Sacrifice?: Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 YALE L.J. 1196, 1266
concerns should come at a more local level where "[s]tate and local officials are apt to have local expertise that is, in practice, unobtainable by national agencies."

In addition to being closer to the source of the problem, state and local governments can offer more attention to the problems of their constituents than can the national government. At the national level, "[l]ocal environmental concerns must compete against national political priorities. A small town that needs to devote resources to improving the quality of its drinking water must compete for federal funds and attention with whatever environmental concern is on the evening news." Inevitably, "federal agencies and national politicians are less responsive" to local environmental concerns than their local counterparts.

Proponents of national mandates may be tempted to argue that allowing individual states and localities to regulate public building results in a lack of uniformity. To counteract this possible result, each state or locality should adopt model guidelines, like the USGBC's LEED Green Building Rating System, and use them as a baseline in creating their own green building regulations. This will allow for some uniformity across the various parts of the country, while simultaneously enabling local governments to adapt their regulations to the specific needs of their jurisdictions. While uniformity has its advantages, enabling local governments to adapt guidelines to their personal needs allows the states and localities to act as "laboratories of democracy" and to discover which types of regulations best suit their specific circumstances and needs, information that will be valuable for the development and enhancement of future guidelines and regulations.

As has been the trend thus far, green building regulations should come from more local levels of government. While federal regulations may offer more uniformity, such uniformity is not necessarily a strength in light of the varying ecological situations facing different regions of the country. What may be a sound regulation for Arizona may not be as sound for Maine or other states in the northeastern part of the country, as these regions encompass vastly different ecological climates. Such different climates carry with them varying needs for environmental protection and regulation. These needs are best met by officials who are closer to the sources and effects of the problems and who carry with them fewer national-scale political

\footnotesize{(1977)).

62 Id.
63 Id. at 692.
64 Id.
65 See id. (discussing how states operate as "green laboratories for democracy").
66 See id. at 690–91.
67 See id.
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III. Should the Government Regulate Green Building Practices in the Private Sector?

Regulation of public sector green building practices already exists at the various levels of government, and such regulation is only going to become more prevalent as time passes.\(^6^9\) The private sector, however, has only been slightly affected by government mandates regarding sustainable development and green building practices.\(^7^0\) Moreover, the few mandates that do exist have arisen solely at local levels of government.\(^7^1\) This means that, as of now, public control over private sector green building practices is minimal. While many proponents of green building standards have argued that private sector regulations are essential to the success of the green building initiative,\(^7^2\) this Note proposes that a combination of government incentives and existing market forces is sufficient to encourage green building practices in the private sector and minimize governmental intrusion until more certainty surrounds the long-term impacts of such practices.

A. Arguments in Opposition to Private Sector Regulation

In arguing that states have authority to regulate the private sector building industry, proponents immediately turn to the police powers available to all states.\(^7^3\) This Note concedes that each state does, in fact, have the power to create mandates regarding green building practices for the promotion of the public health and welfare in both the public and private sectors. Having the power to regulate, however, does not always mean that regulation is the best option.

The prevalent assumption underlying conventional environmental policymaking that government regulation is the only possible source of improvement is illustrated as follows:

In this view, environmental problems arise from "market failures" that produce "externalities." Government regulation is needed to correct environmental concerns that the market has failed to handle because they

\(^6^8\) See id.


\(^7^0\) See supra Part I.D and accompanying notes.

\(^7^1\) Id.

\(^7^2\) See, e.g., Circo, supra note 13, at 732–33 (arguing for state-level legislation that mandates green building standards).

\(^7^3\) See, e.g., id. at 744–45.
are "external" to the price signals that regulate marketplace transactions. To say that the market has failed simply means that human activity has generated an environmental impact that is not accounted for in the price of that activity. Thus, the conventional paradigm of environmental policy justifies the regulation of all activities—from driving a car to turning on a light bulb—that have an impact on the environment that is not factored into the cost of the product or service.74

This view favoring increased government regulation would make sense if the true long-term benefits of green building were known. Unfortunately, in the current environment people know very little about the actual impact of relatively new green building practices; therefore, "it seems unwise . . . to rush to adopt standards that largely have not been studied and may not produce anything close to the claimed benefits."75

The following is an example of the present uncertainty regarding the long-term effects of green building:

A building constructed to the highest LEED standard was estimated to produce about $3.37 per square foot worth of financial benefits per year, or about $33,700 annually for a 10,000-square-foot building.

While this sounds great, 82 percent of these benefits arise from claimed improvements in worker productivity and health, according to [an October 2003 report prepared for California's Sustainable Building Task Force with the assistance of the USGBC]. Unfortunately, these alleged benefits are just that, claims with little supporting data.76

In light of the uncertainty surrounding the true extent of the benefits which will result from green building practices, it makes little sense for the government to mandate that private developers spend their private dollars to promote the cause. Instead, a greater reliance on voluntary arrangements and property rights is essential to the augmentation of sustainable development in private sector building projects.77

While the economic market is more effective than the government in promoting the demands of society, this Note recognizes that it is not without flaws. For example, relying purely on the market means private persons will have to decide whether the benefits of incorporating green building practices outweigh the associated costs.78

74 Adler, supra note 60, at 661.
76 Id.
77 Adler, supra note 60, at 667.
78 See generally Amartya Sen, The Discipline of Cost-Benefit Analysis, in COST-BENEFIT ANALYSIS: LEGAL, ECONOMIC, AND PHILOSOPHICAL PERSPECTIVES 95, 98 (Matthew D. Adler and
government performs this cost-benefit analysis in regards to society as a whole, a private individual or company will ultimately perform the analysis on more individualized terms. If the individual costs of green building outweigh the benefits, the private party will choose not to use sustainable development practices. Inevitably, externalities such as pollution and water runoff resulting from traditional, non-sustainable building practices will be passed on to unrelated third parties, and society as a whole will have to pay for the private party's choice to avoid green building practices.

Regardless, substituting an admittedly imperfect market with even more unsatisfactory government regulation does not allow for the promotion of sustainable development and green building. "While reliance upon market institutions will not lead to ecological paradise, the empirical evidence shows quite clearly that ecological concerns are better cared for when incorporated into market institutions through property rights and exchange than left dependent upon government beneficence for protection." In combination with government incentives like tax credits and zoning regulation exemptions, simple supply and demand economics may prove sufficient to tip the private party's cost-benefit analysis in favor of private sector sustainability practices without the intrusion of government mandates. In light of the uncertainty surrounding the true long-term benefits of green building, it is better to leave the risk-taking decisions to the private sector owners, designers, and builders who will incur the short-term costs, rather than allowing the government to mandate the private financing of these risks.

In a society where sustainability and green building practices are desirable for the benefit of both current and future generations, market forces will encourage such practices, as supply will meet demand. This effect has been demonstrated by the growing presence of green building practices in the private sector thus far, where builders are voluntarily "going green" without government mandates. The market has demonstrated to these private sector companies that incorporating sustainable development in their building practices will match the current consumer demand for such environmental consciousness. The existence of voluntary sustainability initiatives demonstrates that "[m]arkets are very effective at processing information in ways that meet consumer and household needs" as they "move more swiftly and dynamically to respond to changing consumer

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79 See generally id.
81 Adler, supra note 60, at 671.
82 See generally Inst. of Mgmt. & Admin., News Briefs, Design Firm Management & Administration Report, April 2009 (detailing the fact that green building is a bright spot in the U.S. economy and that the credit crunch is not deterring commercial real estate executives from continuing to build green).
needs and preferences than governments."

Moreover, in a free market economy, when one supplier of goods or services begins to match consumer demands for more environmentally-friendly services, all other suppliers will immediately feel the pressure to follow suit. Consumers will demand sustainability practices at the lowest price possible. The pricing mechanism of the free market ensures that the costs of depleting finite resources are borne, at least in part, by the current generation rather than just by future generations. There will be "tremendous pressure to minimize costs, and that means finding ways of doing more with less . . . . Over time, market economies produce a continued decline in the energy and material inputs necessary for a unit of industrial output." This also means that investors and suppliers will look for substitutes for resources that are becoming scarce and, consequently, higher priced. Suppliers will reduce the amount of energy and material inputs they use in an effort to decrease the cost of production, conserve scarce resources, discover new ones, and simultaneously create lower prices for consumers.

If consumers demand more efficient lighting, suppliers will give them more efficient lighting. If they demand easy access to public transportation, suppliers will again give them what they want. As an area of our society not financed by government funding, it is important that we allow private sector building projects to be regulated by the market forces and dollars that drive their profits rather than by the mandates of politically-motivated government officials. While "[l]egislative decision-making might be useful in focusing public opinion on broad issues,. . . . it remains largely unbounded and reflects shifting political needs and interests." It is possible that "several policies adopted by [a] city may further an environmental policy agenda but not promote sustainable development." This is because "[p]olitical concerns, which may or may not be consistent with sustainable development or achieve sustainable development goals, drive legislative policymaking rather than science or a rationalist approach." By relying on market forces and incentives rather than government mandates, we are ensuring that political views do not impede the promotion of sustainable

83 Staley, supra note 4, at 246.
84 See Miceli, supra note 80, at 23-24 (generally discussing supply, demand, and market equilibrium under perfect competition).
85 See id.
86 See Staley, supra note 4, at 243.
87 Adler, supra note 60, at 674.
88 See Staley, supra note 4, at 243.
89 Adler, supra note 60, at 674.
90 Staley, supra note 4, at 246.
91 Id. at 244.
92 Id.
development and a greener society.

Any and all mandatory regulations should be focused only on the public sector. While incentivizing green building in the private sector will inevitably prove beneficial, mandating such practices in the private sector will only work against the established forces in place in our market economy. Centralized regulatory agencies are poorly financed and, therefore, ill-equipped to handle the various tangential ecological interactions triggered by private development. With private ownership and free transferability, the economic market is directed by consumer wants and demands. If sustainability and green building practices are desirable and the benefits of green building outweigh the associated costs to the private developer, then market forces will inevitably encourage such practices without government interference. This trend is evident through the huge increase over the past few years in private sector green building and the vocalized desirability of green development for the future. This increase resulted from a combination of available government incentives and consumer demands on private developers for environmental consciousness; it also occurred despite a lack of green building mandates on the private sector of the economy.

B. Government Incentives Would Encourage Green Building in the Private Sector While Creating Minimal Market Interruptions

As stated previously, this Note suggests that a combination of market forces and government incentives will effectively promote sustainability and greater environmental consciousness. The government has the ability to encourage green building in the related industries without passing legislative mandates for such practices. This encouragement comes in the form of government incentives. These incentives range from “carrots,” such as tax credits, zoning regulation exemptions, and information provision, to “sticks,” such as local impact fees, requirements, and taxes. While sticks may be effective in certain situations, they are not necessarily sufficient in all situations to encourage green building practices.

In the private sector, some sticks will inevitably have the effect of punishing owners, builders, and designers for failure to use their private

93 See Adler, supra note 60, at 690–92.
94 See Miceli, supra note 80, at 23–24 (generally discussing supply, demand, and market equilibrium under perfect competition).
95 See Sentman et al., supra note 37, at 51; King & King, supra note 38, at 399.
96 See generally Kingsley, supra note 21, at 543–47. Kingsley’s Note discusses the use of various “carrots” and “sticks” by governmental entities to stimulate green building, advocating for the latter over the former. See id. Note, however, that this author takes the opposite view regarding the effectiveness of the use of “carrots.”
funds for the benefit of society as a whole. These sticks, in effect, attempt to punish the private sector developers for doing what makes the most sense with their private dollars. Unfortunately, the intended effect of the sticks, to force private developers to use their private funds to benefit society as a whole through green building, may not be the actual outcome when developers choose to submit to the sticks instead of implementing sustainability practices. For example, if, after an individualized cost–benefit analysis, a private developer finds that the costs of green building practices outweigh the benefits, even in light of a tax for failing to implement such practices, the developer will choose to pay the tax rather than incorporate the practices. This tax money will then go to the government who ideally would use the money to promote the "green" cause; realistically, however, governments are inefficient and those tax dollars will likely be subjected to the politically-motivated tug-of-war of Washington. Not only does this result seem inequitable, but it also tends to create a free rider problem, whereby the government places a large portion of the burden of cleaning up our environment on developers while the rest of society stands back and does little to promote the cause.

Instead of harsh punishments, the government should focus on the use of carrots to incentivize private sector developers to adopt green building practices and incorporate sustainable development in their services. As previously discussed, the free market responds quickly to market forces and consumer demand. The government “needs to be involved in creating demand by buyers and builders for sustainable construction.” It should join forces with private industries “to provide information and job training that will support sustainable building practices in the United States.” A broad effort to provide information to the public regarding the benefits of “going green” in every aspect of life will increase consumer demand and eventually force suppliers and developers to meet that demand with greener practices.

In addition to widespread information provision, governments at all levels should consider implementing tax credits or exemptions to encourage green building and sustainability practices. Some critics argue that local tax exemptions are impractical because of the chronic budget deficits that more local forms of government currently face. This argument can be

98 See supra notes 90–92 and accompanying text.
100 King & King, supra note 38, at 459.
101 Id.
102 See Kingsley, supra note 21, at 546.
overcome, however, by the presence of federal tax exemptions to help aid the effort.

This Note supports a “green building tax credit” which would go beyond incentivizing mere energy efficiency by specifically encouraging sustainable business practices.103 The possible benefits of such a tax credit are described as follows:

[T]ax credits for green building design encourage businesses to invest in the sustainability of their buildings, an effort that goes well beyond energy conservation or use of renewable resources. Sustainable construction practices encompass mitigation of a broad range of environmental impacts and incorporate design features that provide a better quality of life for the building’s occupants and the surrounding community, such as access to public transportation.104

Tax credits would effectively encourage private businesses to go green, so long as the benefits of doing so outweigh the costs to the individual businesses.105 This allows private parties, rather than the government, to decide whether to risk their private dollars in the promotion of sustainability.

For such a federal tax credit to be effective, it must provide builders and developers with a credit that is at least equivalent to the direct costs of incorporating green building and sustainability practices.106 Additionally, the tax credit should apply to all commercial developments that meet the requisite green standards, regardless of the size of the project, with a larger credit offered as projects meet a greater number of green standards.107 By applying to both major and minor projects, the government is encouraging green building through tax incentives to all developers, not just the wealthier ones who can afford to take on the big projects. This strategy ensures that tax incentives are available to more than just those who can afford it, but rather are available to anyone who is willing to promote sustainability in their projects.108

It is also important to note that the imposition of a tax credit will work more effectively in conjunction with the wide-spread provision of information regarding the benefits of sustainability.109 Unless society is made aware of the benefits of green building and the incentives available

103 See King & King, supra note 38, at 419–23.
104 Id. at 420.
105 See generally Sen, supra note 78 (generally discussing cost–benefit analysis and its basic rationale).
106 King & King, supra note 38, at 454.
107 Id. at 454, 456.
108 See id. at 456.
109 Id. at 453–57, 459.
to encourage sustainability, the demand for sustainability will not grow. Furthermore, in the absence of knowledge regarding the benefits of going green and the resulting consumer demand, many developers seeking only tax incentives may attempt to cut corners to meet exemption requirements and fulfill contract obligations. Such a short-term view focuses only on short cuts and tax incentives and does not coincide with the long-term goals of sustainable development and green building.

The former LEED rating system allowed these short cuts because “all environmental improvements under LEED [were] assigned one value, even though some improvements cost much more and [had] far greater environmental benefits than others.” This meant that “a development could conceivably get one point for installing an energy-efficient HVAC system costing millions of dollars and one point for installing a bicycle rack costing several hundred dollars.” This unweighted allocation of points cuts against the encouragement of long-term sustainability and instead leads builders and developers to cut corners.

Fortunately, the USGBC just released the new LEED version 3, which includes, among other developments, advancements to the LEED rating systems. The new system uses a weighted point distribution and allocates more points to credits that are believed to have a larger positive environmental impact. Still, the true long-term benefits of the new LEED system and sustainable development in general are not yet known. Additional time and further research are necessary to insure that sufficient information about the long-term effects of these green building initiatives is gathered before private sector mandates are even a consideration.

Until the long-term effects of green building are discovered, a combination of government incentives and market forces is not only capable of encouraging the green building trend without governmental mandates, but it is also a more efficient means of putting environmentally-responsible practices into action. Whereas it may take the government months or even years to respond to consumers needs and preferences regarding the environment, markets are able to move more swiftly and dynamically in response to such evolving environmental demands. While the various levels of government typically must send their proposals to different branches for approval before regulations may be enacted, the free market

11 Mark J. Bennett et al., CURRENT CRITICAL ISSUES IN ENVIRONMENTAL LAW: GREEN BUILDINGS AND SUSTAINABLE DEVELOPMENT 17 (2008).
12 Id.
14 See supra notes 23–28.
15 See Staley, supra note 4, at 246.
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can respond as soon as the consumers' dollars vote. The government is still an essential player in the green movement, however, as it must encourage private developers in this market movement by continuing to incentivize sustainability practices.

IV. CURRENT GOVERNMENTAL OUTLOOK ON SUSTAINABILITY PROMOTION IN TODAY'S ECONOMIC CLIMATE

As previously mentioned, President Barack Obama recently signed the American Recovery and Reinvestment Act of 2009.\textsuperscript{116} The Act is a "green" stimulus bill that strongly promotes energy efficiency and green building as a way to clean up our environment and simultaneously create "green-collar jobs."\textsuperscript{117} While the bill does in fact encourage "going green," the green provisions in the final version of the bill were cut back drastically after meeting some opposition in Congress.\textsuperscript{118} Whereas $7 billion was originally proposed for allocation to a federal green building program, that figure was cut back to $5 billion.\textsuperscript{119} Nevertheless, environmentalists and green building activists remain largely supportive of the bill.\textsuperscript{120}

In an economic recession, incentivizing green building and energy efficiency is a way to decrease the unemployment rate. The USGBC President and CEO, Rick Fedrizzi, stated that "the green building--related initiatives laid out in President Obama's economic recovery package will help put thousands of Americans back to work in the immediate term, creating as many as two million green jobs in the next five years."\textsuperscript{121} The employment benefits of this green stimulus package "will percolate through the economy" in waves, from hands--on green collar jobs, to "people doing the marketing, websites, accounting, [and] hiring," to teachers who "take all of this information" and make it comprehensible and available to everyone.\textsuperscript{122} The creation of jobs in addition to protecting the environment from future harm is an enormous benefit associated with green building and long--term sustainability.

\begin{itemize}
\item \textsuperscript{116} See supra notes 5--8, and accompanying text.
\item \textsuperscript{117} See Glenn Croston, \textit{Stimulus Package Has Green for Clean Energy}, \textsc{Entrepreneur.com}, http://www.entrepreneur.com/startingabusiness/goinggreen/article200500.html (last visited Jan. 6, 2010).
\item \textsuperscript{119} Id.
\item \textsuperscript{120} See \textit{Press Release, Earth Day Network, Greening Stimulus Bill Key to Long--Term Health of Environment, Economy: Congress Should Meet Americans Halfway} (Jan. 15, 2009), http://www.earthday.net/stimuluspressrelease.
\item \textsuperscript{122} Croston, \textit{supra} note 117.
\end{itemize}
It is important to note that, for the most part, sustainability mandates in the Act are focused on the public sector of the economy. There are, however, incentives for private sector green building and sustainability. Some of these incentives are found in the form of extended and enlarged tax credits. For example, the stimulus bill “[e]xtended tax credits for improvements to energy-efficient existing homes through 2010 and increased the tax credit to 30% of the amount paid or incurred by the taxpayer for qualified energy efficiency improvements.” The tax credit originally only extended through 2009 and was only a 10% credit. Using carrots such as tax credits, rather than mandates, encourages the private sector to take part in green building and long-term sustainability practices without forcing the use of private sector dollars to obtain the desired, yet uncertain, public benefits associated with green building. Carrots allow supply and demand to continue to dominate the free market, while offering an added incentive to those private developers who include sustainable building practices in their designing and building processes.

CONCLUSION

Going green in the design and construction industries is inevitable in light of the recent awareness of the harms inflicted on the environment by current building and development practices. Public recognition of green building efforts is spreading through nonprofit organizations, commercial advertisements, various government regulations, and, most recently, the federal stimulus package. As green building and sustainability gain popularity, the government must decide how to regulate this trend and at what level of government to do so.

Currently, there are no broad federal regulations concerning green building practices. Instead, the United States Green Building Council has set forth guidelines known as the LEED Green Building Rating System. These established guidelines have been implemented by both state and local governments in various ways. While some of these regulations come in the form of mandates, most take the form of incentives. Mandates are more common for public sector building projects financed largely by

125 See id.
126 Id.
taxpayer dollars than for projects in the private sector. Any private sector mandates currently in existence are at the local level. To date, no state has mandated private sector green building practices.

While government regulation of public sector building is desirable to ensure taxpayer dollars are used to further their health and safety, regulation of the private sector should be much more limited, focusing on incentives rather than mandates. Because green building is a fairly recent phenomenon, only time will tell which practices are truly the best for our environment and society. Until such data and results are compiled, it makes little sense to force mandatory building regulations on private sector developments before existing sustainability practices are proven effective. Instead, government at all levels should encourage these practices through incentives such as tax credits, zoning regulation exemptions, and information provision. This is the approach that President Obama and our current Congress have taken regarding private sector green building practices in the American Recovery and Reinvestment Act of 2009. Lower levels of government should follow their lead and encourage, rather than force, green building practices in the private sector.