BRINGING DETROIT BACK TO LIFE: THE UTILIZATION OF LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN ("LEED") CERTIFICATION TO REVIVE URBAN DECAY

Michael O'Brien*

I. INTRODUCTION

"Detroit is a place where we've had it pretty tough. But there is generosity here and a well of kindness that goes deep."
-Mitch Albom

Detroit, commonly known as the Motor City, was one of America's most powerful cities in its prime, thanks to Henry Ford and the automotive industry.[1] Middle-class families flocked to the Motor City to fill the factories and take part in what made the city innovative, by building automobiles as well as the pride of Detroit.[2] The population peaked during the 1950s; however, Detroit failed to

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[1] *See* Tim Alberta, *Can Detroit Rebuild its Middle Class?*, THE NATIONAL JOURNAL (Feb. 28, 2014), *archived at* http://perma.cc/QV8B-GPVJ (giving credit to Henry Ford for creating the automobile and essentially leading to the boom of the middle class in Detroit); *see also* Amy Padnani, *Anatomy of Detroit's Decline*, THE NEW YORK TIMES (Dec. 8, 2013), *archived at* http://perma.cc/3LYS-3VV3 (outlining Detroit's rise to power to become the "Motor City," and describing how the automotive industry had an impact on the success of Detroit's past).

[2] *See AP Photos: Detroit's Rise and Fall*, AP NEWS (July 19, 2013), *archived at* http://perma.cc/8T8-YV25 (discussing the appeal for middle-class families during the 1950s to move to Detroit due the auto-industry).

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diversify economically.[3] When the auto-industry expanded outside Detroit and jobs began leaving the area, the industry that once made the city so prosperous, created a path to demise.[4] Ultimately, Detroit filed for bankruptcy due to its inability to recover from its past, the loss of a middle class, and other downfalls.[5] Today, the population is less than half of what it was during the 1950s, leaving entire neighborhoods, offices, factories and other buildings vacant, and allowing them to succumb to mother nature and add to the urban decay of the city.[6]

In order for Detroit to recover from bankruptcy and prosper, as it did during the city's economic pinnacle, it is going to have to attract people and businesses back into the area, but in a different way.[7] The empty blocks that make up Detroit have the potential to create another economic boom, like in the past.[8] There is a noticeable small-scale economic revival happening with young middle-class entrepreneurs, risk takers, as well as some corporations moving downtown, however, more has to be done to create a successful large-scale revival.[9] With the use of green technology, more specifically Leadership in Energy and Environmental Design ("LEED") Certification, the City of Detroit may be able to come back stronger than ever.[10]

This Note will argue that if Detroit utilizes LEED certification in all facets of both construction updates and new construction, such

[3] *See* Padnani, *supra* note 1 (emphasizing that after the population peak during the 1950s in Detroit, the population has since been on a decline due to lack of diversification in the economic realm).
[4] *See* Padnani, *supra* note 1 (time-lining events that lead to residents leaving the Detroit area).
[5] *See* Alberta, *supra* note 1 (stating that exactly 100 years after the era of Henry Ford, Detroit filed for bankruptcy); *see also* Padnani, *supra* note 1 (discussing other events throughout Detroit's history that ultimately lead to the major decline in its population).
[6] *See* Alberta, *supra* note 1 (pointing out that Detroit's population has dropped from nearly two-million, back in its heyday, to only 700,000 today, and the remains of the middle class that left years ago).
[7] *See* Wallace Turbeville, *The Detroit Bankruptcy*, DĒMOS (Nov. 20, 2013), *archived at* http://perma.cc/55YZ-KPW5 (analyzing the circumstances around Detroit's bankruptcy).
[8] *See* Padnani, *supra* note 1 (discussing the low population areas in Detroit and what the heyday was like in the past).
[9] *See* Alberta, *supra* note 1 (recognizing that there is some economic revitalization in Detroit; however, there is far more dilapidation and abandonment than growth).
[10] *See What is LEED?*, BOSTON UNIVERSITY, *archived at* http://perma.cc/M2LE-HUYQ (describing the process of LEED Certification).

as commercial, residential, and educational, then the city will not only gain recognition on a national "energy-sufficient" scale, but it will also attract businesses and residents back to the city through various incentives and by meeting public policy concerns.[11] This Note will begin by addressing Detroit's current economic status and how it came to be.[12] Then this Note will discuss the historical legal implications of using LEED certification on a federal, state, and municipal scale in both public and private sectors.[13] Overall, this Note will be interpreting other cities' use of LEED certification and analyzing whether Detroit can implement a similar platform, to promote energy sufficiency and economic growth, while still reflecting positively on public policy and abiding by present state legislation.[14]

II. HISTORY

A. The City of Detroit

1. History

The City of Detroit, Michigan was founded in 1815, however, the population did not surge until the early 20th century.[15] The city has Henry Ford to thank for the rapid influx of people when he built his first automobile in Detroit in 1896, and introduced the moving assembly line, defined as "an arrangement of machines, tools, and workers in which a product is assembled by having each perform a specific, successive operation on an incomplete unit as it passes by in a series of stages organized in a direct line."[16] The moving assembly

[11] *See infra* Part 0; s*ee also* Katherine A. Trisolini, *All Hands on Deck: Local Governments and the Potential for Bidirectional Climate Change Regulation*, 62 STAN. L. REV. 669, 693 (2010) (exemplifying the importance of local government role of becoming energy efficient on a national scale).
[12] *See infra* Part 0.
[13] *See infra* Part 0.
[14] *See infra* Part 0.
[15] *See* Eric A. Scorsone, *Depopulating Cities and Chronic Fiscal Stress: The Detroit Story*, 14 J.L. SOC'Y 207, 208-09 (2013) (highlighting Detroit's claim to fame and booming population due to the auto-industry and Henry Ford).
[16] *See Detroit History*, CITY OF DETROIT (2014), *archived at* http://perma.cc/WK9R-WY3S (providing a brief history of the founding of Detroit, and Henry Ford's influence on the City's culture); *see also Assembly line Definition*, DICTIONARY.COM, *archived at* http://perma.cc/CA8D-PB2A (defining the term "assembly line").

line helped lead Detroit into the forefront of the industrial era and provided thousands of middle-class jobs.[17] Detroit's population hit its peak population in the 1950s at 1.85 million because of the auto-industry and other manufacturing factories.[18]

2. Economic Downturn

In all of Detroit's glory, one major issue was not addressed; the city did not diversify its economy and only focused on manufacturing and the auto-industry.[19] After the 1950s, with increasing racial tensions, strikes broke out due to union negotiations, as well as a refusal of blacks and whites from working together in the factories.[20] Factories began decentralizing from downtown and moving to the suburbs and neighboring states to ensure the continuation of work production.[21] Over time, people began following the job opportunities by packing and leaving the city, causing widespread vacancies and the declination of the city's population and property values.[22]

Furthering the population loss, Detroit was hit by an energy crisis in the 1970s and the economic recession of the 1980s.[23] Foreign competition in the auto and manufacturing industry also aided to job loss in Detroit.[24] Since Detroit did not diversify, and relied solely on its success in the auto-industry, there was nothing for the city to

[17] *See* Padnani, *supra* note 1 (highlighting that the auto-industry provided many middle-class jobs).
[18] *See* Padnani, *supra* note 1 (providing that Detroit's population peaked during the 1950s and was the fourth largest city in America at that time).
[19] *See* Padnani, *supra* note 1 (pointing out that Detroit faced major problems because it failed to diversify its economy during the 1950s).
[20] *See* Padnani, *supra* note 1 (explaining the racial tensions that took place after the 1950's).
[21] *See* Padnani, *supra* note 1 (discussing the decentralization of Detroit due to the labor union strikes).
[22] *See* Nathan Bomey & John Gallagher, *How Detroit went broke: The answers may surprise you – and don't blame Coleman Young*, DETROIT FREE PRESS (Sept. 15, 2013), *archived at* http://perma.cc/UH3R-WTQT (explaining the suburbanization and deindustrialization of Detroit).
[23] *See* Padnani, *supra* note 1 (stating that the energy crisis in the 1970s and the recession during the 1980s added to the declination of the population of Detroit).
[24] *See* Bomey & Gallagher, *supra* note 22 (discussing how many jobs were lost to foreign competition during the second half of the 20th century).

prosper on.[25] Detroit also faced many financial management burdens, such as launching a borrowing spree to cover the city's operating expenses, which skyrocketed during the 2000s.[26]

3. Current Status

Due to the declination of Detroit's population and long-term unemployment, the city's property and income tax revenues plummeted.[27] The population in 2013 was counted at 688,701 citizens, compared to the nearly two million people living in Detroit during the 1950s.[28] The state of Michigan reduced Detroit's state-shared revenue by forty-eight percent from 1998 to 2012, withholding around $172 million from the city, playing a major part in the financial burden of Detroit.[29]

Due to the financial crisis, Governor Rick Snyder appointed bankruptcy attorney Kevyn Orr as the city's emergency manager on March 14, 2013.[30] By the time Orr was elected, Detroit faced over $18 billion in debt, and Orr made the decision to file the city for title 9 bankruptcy on July 8, 2013.[31] Bette Buss, a former city budget staffer stated, "Detroit got into a trap of doing a lot of borrowing for cash flow purposes and then trying to figure out how to push costs (out) as much as possible."[32] Detroit filed for Title 9 bankruptcy be-

[25] *See* Padnani, *supra* note 1 (explaining that Detroit's failure to diversify left nothing for the city to prosper, unlike how other neighboring cities were able to do once the auto industry expanded).
[26] *See* Bomey & Gallagher, *supra* note 22 (analyzing Detroit's mayors and political staff and how they contributed to the massive amounts of debt Detroit acquired since the 1960s).
[27] *See* Turbeville, *supra* note 7 (highlighting that the depopulation caused property costs and tax revenues to diminish).
[28] *See* Christine MacDonald, *Suburbs Gain While Detroit Population Drops Below 700,000*, THE DETROIT NEWS (May 21, 2014), *archived at* http://perma.cc/849-FQ65 (providing the population of Detroit as of the year 2013).
[29] *See* Bomey & Gallagher, *supra* note 22 (discussing how the state of Michigan reduced Detroit's share of state funding, totaling $172 million since 1998); *see also* Turbeville, *supra* note 7 (inferring that Michigan withheld revenue from Detroit, exacerbating Detroit's financial problems).
[30] *See* Monica Davey, *Bankruptcy Lawyer Is Named to Manage an Ailing Detroit*, THE NEW YORK TIMES (Mar. 14, 2013), *archived at* https://perma.cc/9VCH-A6CH (summarizing the appointment of Kevyn Orr as the emergency manager of Detroit).
[31] *See* Bomey & Gallagher, *supra* note 22 (highlighting the date that Orr filed for title 9 bankruptcy and the amount of Detroit's debt at the time of filing).
[32] *See* Bomey & Gallagher, *supra* note 22.

cause the city's issue was not its debt, but its cash flow.[33] The city could not bring in enough revenue to cover its immediate costs forcing it to go bankrupt.[34]

Overall, with Detroit's economic crisis and depopulation, the 139 square mile city is home of 78,506 dilapidated and blighted properties, thirty percent of all buildings within the city.[35] In addition, there are 114,000 vacant parcels; about thirty percent of the Cities total number of parcels, and ninety percent of publicly held parcels are blighted.[36] The estimated cost of ending blight in Detroit is around $850 million, but that is not including manufacturing factories, which could cost up to $1 billion more.[37] Unless the City can find private or federal funding, Detroit will continue to struggle with the issue of blight for years to come.[38]

B. Land Use and the development of Green Regulation

1. The Beginning of Land Use

In the 1791 ratification of the Tenth Amendment, land use was introduced into the U.S. Constitution for the first time.[39] The ratification granted states full police powers and the ability to decide how to regulate private land.[40] The only interference with the states'

[33] *See* Turbeville, *supra* note 7 (defining what title 9 bankruptcy and cash flows are in context to corporate bankruptcies).
[34] *See* Turbeville, *supra* note 7 (providing that the issue with Detroit and cash flows was that they could not provide for the city's expenses).
[35] *See* Monica Davey, *Detroit Urged to Tear Down 40,000 Buildings*, THE NEW YORK TIMES (May 27, 2014), *archived at* http://perma.cc/MQ92-LAGC (examining Detroit's need to demolish or fix its withered and vacant parcels).
[36] *See id*. (stating the number of vacant parcels and how many of them are considered to be blighted in Detroit).
[37] *See id.* (highlighting the cost it would take the city of Detroit in order for it to fix its problem with dilapidated parcels).
[38] *See id*. (inferring that the city of Detroit cannot afford to take care of its blighted problem solely on its own).
[39] *See* Anthony DeLaPaz, Note, *LEED Locally: How Local Governments can Effectively Mandate Green Building Standards*, 2013 U. ILL. L. REV. 1211, 1215 (2013) (providing the date when land use was ratified into the U.S. Constitution).
[40] *See id.* (describing what the ratification granted to the states).

land use regulation became the federal regulations of interstate commerce and the enforcement of international treaties.[41]

By the twentieth century, land use was mainly controlled through nuisance laws and private restrictive covenants.[42] However, these actions were expensive and usually did not result in solutions to land use problems because nuisance claims were held on a case-by-case basis.[43]

2. Utilization of Zoning for Land Use

From the years 1916 to 1926, zoning went back and forth between being held constitutional and being held unconstitutional.[44] In 1922, the Standard State Zoning Enabling Act was released by Herbert Hoover to include "a grant of power, a provision that the legislative body could divide the local government's territory into districts, a statement of purpose for the zoning regulations, and procedures for establishing and amending the zoning regulations."[45] Also in 1922, the U.S. Supreme Court held in *Pennsylvania Coal Co. v. Mahon* that property may be regulated to a certain extent; however, if a regulation goes too far then it will be considered a taking.[46] *Mahon* established a new constitutional limit on land-use control through the Fifth Amendment of the U.S. Constitution.[47]

In 1926, following the holding in *Mahon*, the U.S. Supreme Court upheld the constitutionality of zoning in *Euclid v. Ambler Real-*

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[41] *See id.* at 1217 (explaining the interference that the federal government had on state and local governments).
[42] *See id.* at 1216 (discussing how landowners had a right of action against those who created a substantial interference with their private land use or enjoyment of their land with nuisance laws).
[43] *See id.* (explaining the difficulties brought on by nuisance cases).
[44] *See id.* (outlining how zoning was considered both constitutional and unconstitutional from 1916-1926).
[45] *Making Great Communities Happen,* AMERICAN PLANNING ASSOCIATION (2015), *archived at* http://perma.cc/42KZ-MWGY.
[46] *See* Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 415 (1922) (discussing how property regulation to an extreme will be considered a taking); *see also Taking*, BLACK'S LAW DICTIONARY (10th ed. 2014) (defining taking as "when government action directly interferes with or substantially disturbs the owner's use and enjoyment of the property").
[47] *See Mahon*, 260 U.S. at 415 (explaining that land-use control was created through the Fifth Amendment).

ty Co.[48] Local zoning was upheld as a valid use of police powers because the village of Euclid was able to prove that there were health and safety dangers imposed on the public when commercial, industrial, and residential uses were mixed.[49]

3. Implementation of Building Codes

In 1927, the Uniform Building Code ("UBC") was created to provide, on both the state and local level, a uniform set of standards to use in building regulations.[50] Federally, there is no mandated building code, however, federal buildings follow federal standards.[51] On the state level, governments can create and choose which building codes to enact, and local governments may also adopt their own building codes if the state grants them that power.[52] State governments are able to legislate and delegate its inherent police power authority to local governments, which includes the power to zone and plan.[53] Building codes enacted on any level can be used to address requirements for related building systems like mechanical, plumbing, gas, electrical, and conservation of energy.[54]

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[48] *See* Village of Euclid, Ohio v. Ambler Realty Co., 272 U.S. 365, 397 (1926) (holding that zoning was constitutional).
[49] *See id.* (holding that the use of local powers to control zoning was valid).
[50] *See* DeLaPaz, *supra* note 39, at 1218-19 (explaining why the UBC was created).
[51] *See* DeLaPaz, *supra* note 39, at 1219 (stating the federal standards required for "construction, reconstruction, alteration, and repair of buildings, including structural materials, design and construction materials, fire protection, health, sanitation, and safety").
[52] *See* DeLaPaz, *supra* note 39, at 1219 (providing what state and local governments can do in regards to building codes).
[53] *See* DeLaPaz, *supra* note 39, at 1219 (discussing how local governments can utilize police powers for enacting building codes); *see also* Stuart Meck, *Model Planning and Zoning Enabling Legislation: A Short History*, *in Modernizing State Planning Statutes* 1 (American Planning Association, Report Paper No. 462/463,1996), *archived at* https://perma.cc/4Y5H-3TXM (explaining all states have planning and zoning enabling legislation and powers, which can be delegated to local governments).
[54] *See* DeLaPaz, *supra* note 39, at 1219 (explaining why building codes are enacted); *see also* John R. Nolon, *Land Use for Energy Conservation and Sustainable Development: A New Path Toward Climate Change Mitigation*, 27 J. LAND USE & ENVTL. LAW 295, 296 (2012) (stating how construction and the use of buildings can be enhanced toward adopting better energy conservation).

4. Incorporating Green Zoning Ordinances

It can be hard to incorporate green zoning ordinances into legislation because the state level may be preempted if federal efforts to mandate energy efficiency standards are enacted.[55] Likewise, local governments can also have issues enacting green zoning ordinances because state governments must delegate them the authority to do so.[56] Local governments however, have enacted sustainable building codes and transportation regulations, utilizing land use legislation.[57] To be considered "green," many governments focus on sustainability, which is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs."[58]

III. FACTS

A. LEED Certification

1. Leadership in Energy and Environmental Design Certification

LEED certification is an internationally recognized green building certification system that provides third-party verification of a building or a community.[59] LEED certification requires that the building or community was built within certain standards to promote energy savings, reduce carbon footprints, increase water efficiency, and improve indoor environmental quality.[60] LEED certification was developed and introduced by the U.S. Green Building Council ("USGBC") in 2000, to provide building owners and operators with a

[55] *See* DeLaPaz, *supra* note 39, at 1220 (explaining how states cannot go beyond federal statutes).
[56] *See* DeLaPaz, *supra* note 39, at 1220 (explaining how local governments cannot go beyond powers delegated to them from the state).
[57] *See* DeLaPaz, *supra* note 39, at 1220 (discussing ways local governments enact sustainable building); *see also* BOSTON, MASS., CODE art. 37 (2007) (ensuring new buildings are designed to minimize environmental impact).
[58] *See* DeLaPaz, *supra* note 39, at 1220 (explaining how governments determine what is meant to be considered "green").
[59] *See What is LEED?*, *supra* note 10 (stating the uses of LEED certification).
[60] *See What is LEED?*, *supra* note 10 (providing why LEED certification promotes sustainability).

laid out framework for identifying, implementing, and creating practical and measurable green building designs, constructing, operating, and maintaining solutions.[61] The certification encompasses every facet of a building's existence, from the design, or remodel, of a building to the everyday use of that building once finished.[62]

In 2008, the USGBC transferred its responsibility of administering the LEED certification program as well as the LEED Accredited Professional Program ("LEED AP") to the Green Building Certification Institute ("GBCI").[63] "The GBCI is an independent, third-party global certification and credentialing body."[64] It is also the only group that administers project certifications and professional credentials and certificates within the framework of the LEED Green Building Rating Systems.[65] Under the LEED certification program, the GBCI determines whether registered projects have met the standards set forth by the LEED rating system.[66] The second facet of the GBCI is professional credentialing.[67] GBCI develops and administers the American National Standards Institute ("ANSI"), accredited LEED professional credential exams, which comply with the Interna-

[61] *See USGBC History*, USGBC (Oct. 26, 2014), *archived at* http://perma.cc/64VX-TM8H (stating that LEED Certification was revealed in March 2000); *see also* THOMAS M. MENINO, BOSTON GREEN BUILDING, MAYOR MENINO'S GREEN BUILDING TASK FORCE REPORT: EXECUTIVE SUMMARY 15 (2004) (recommending that the City of Boston should strive for USGBC Certification, in addition to LEED Certification).

[62] *See What is LEED?*, *supra* note 10 (providing the various uses of LEED Certification).

[63] *See New Credentialing Organization Launched for Green Building Professionals*, BUILDINGONLINE (Nov. 20, 2007), *archived at* http://perma.cc/PLV6-H4PU (discussing the importance of the GBCI, and the role it plays in LEED certification and the LEED AP program); *see also* GBCI, *archived at* http://perma.cc/Z7XC-24X4 (2011) (informing what the GBCI is and what services this group provides).

[64] *See* GBCI, *supra* note 63 (quoting the purpose of the GBCI).

[65] *See* GBCI, *supra* note 63 (highlighting the objectives of GBCI). GBCI's mission statement is: "GBCI is the premier organization independently recognizing excellence in green building industry performance and practice globally and ensuring global competitiveness and reduced environmental impact through its voluntary certification and credentialing standards." *Id.*

[66] *See* GBCI, *supra* note 63 (outlining the main goals of the LEED certification program). Under LEED certified projects, there are over one billion square feet of space that qualifies, and another six billion square feet awaiting certification by the GBCI. *Id.*

[67] *See* GBCI, *supra* note 63 (explaining the professional credentialing process of GBCI).

tional Organization for Standardization ("ISO") Standard 17024.[68] To keep professionals accredited and up to date with the green building industry, GBCI oversees the Credential Maintenance Program, which is a continuing education program to ensure the continuation of qualified LEED professionals.[69]

An updated LEED certification process called "LEED v4" was introduced during the US Green Building Council's annual Greenbuild conference on November 20, 2013.[70] The updated version will include new market sectors,[71] time saving support tools and resources,[72] a stronger focus on building performance management,[73] and new impact categories.[74] One-hundred and twenty-two beta pro-

[68] *See New Credentialing Organization Launched for Green Building Professionals*, *supra* note 63 (stating GBCI is accredited under ANSI, which complies with ISO Standard 17024); *see also* Elizabeth Gasiorowski-Denis, *New and Improved ISO/IEC 17024 Standard for Personnel Certification Programmes* (July 24, 2012), *archived at* http://perma.cc/BX9J-3WY8 (providing that ISO standard 17024 provides a global benchmark for personnel certification programs to make sure they all operate in a comparable manner, worldwide).

[69] *See* GBCI, *supra* note 63 (detailing the continuing education program that the GBCI created and currently oversees).

[70] *See* Claire Moloney, *LEED v4 Changes: Exams and Deadline* (June 26, 2014), *archived at* http://perma.cc/58AU-RESS (addressing that LEED is updating certain areas and will be in a trial period until October of 2016).

[71] *See id.* (addressing that LEED v4 will "address new market sectors by introducing rating systems for a wider selection of building types including: data centers, warehouses, and distribution centers, hospitality, existing schools and retail, and mid-rise residential projects").

[72] *See id.* (discussing new tools, resources, and the new LEED online; highlighting how it will be simpler to use, and will be available on December 9, 2013).

> All of the forms for LEED v4 are now in the Credit Library, rather than in LEED Online, which makes them more accessible to project teams who have not yet signed up on LEED Online. USGBC has also issued a revised certification policy manual and new reference guides (in web and print format) with videos and tutorials. USGBC will offer customer account management in addition to 'LEED Coach' and 'Proven Provider' programs, which will help to improve customer service.

Id.

[73] *See* Moloney, *supra* note 70 (analyzing the stronger focus on performance rather than design when certifying a building). LEED will be introducing a "Dynamic Plaque" to reflect a building's real-time performance and LEED v4's credits will encourage water and energy metering to be held part of the certification process. *Id*.

[74] *See* Moloney, *supra* note 70 (discussing the new impact categories introduced with the new LEED v4).

jects have tested the new LEED v4, and it is currently available to new building projects.[75] New projects, however, can still use the older LEED rating system until October of 2016.[76] After that date, LEED v4 will be mandatory for new projects.[77]

B. LEED Certification Process

The first step to participate in the LEED certification process requires the developer or owner to register the projects with the GBCI and pay a fee.[78] All projects, whether the new construction of a home or retail space, or the renovation of an old building, go through a similar application review process by the GBCI to receive LEED certification; different projects, however are categorized under different LEED rating systems.[79] There are five different LEED rating systems: Building Design and Construction, Interior Design and Construction, Building Operations and Maintenance, Neighborhood Development, and Homes.[80] Projects achieve LEED certification through the GBCI by earning designated points and fulfilling specific criteria in the following LEED credit categories: Sustainable Sites,[81]

> LEED has updated its credits to take climate change, health, water resources, biodiversity, the green economy, community and natural resources into account. It has added a new credit category, Location & Transportation, and added 'Integrative Process Credits' that reflect the important of integrated project design with strong communication between all project team members.

Id.

[75] *See* Moloney, *supra* note 70 (stating that the new LEED v4 is available now to be used by projects).

[76] *See* Moloney, *supra* note 70 (addressing that the deadline to be able to use the older version of LEED will be October 2016).

[77] *See* Moloney, *supra* note 70 (stating that after October 2016 any new projects must use the new version, LEED v4).

[78] *See* John R. Labar, *Green Appeal: LEED Certification Appeal Process and Suggestions for Improvement*, 14 TRANSACTIONS 165, 167 (2013) (discussing the certification process for LEED certification).

[79] *See* USGBC, *archived at* http://perma.cc/ZRV4-EXCS (laying out the different projects and LEEDs rating systems).

[80] *See LEED*, U.S. GREEN BUILDING COUNCIL (2014), *archived at* http://perma.cc/6YWK-KGWP (providing the five different ways to appropriately apply LEED).

[81] *See* Claire Moloney, *LEED v4 Changes: New Credit Categories?* (June 26, 2014), *archived at* http://perma.cc/J5C2-RJHR (providing in depth detail of each of the LEED credit categories including the new credit categories).

Water Efficiency,[82] Energy and Atmosphere,[83] Materials and Resources,[84] Indoor Environmental Quality,[85] Innovation,[86] Regional

> Many of the v4 Sustainable Sites credits are similar to those in version 2009, though some of the credits, such as 'Bicycle Facilities', 'Access to Quality Transit' and 'Green Vehicles', have been moved from this category to the new "Location & Transportation" credit category. LEED v4's Sustainable Sites credit category still contains credits for construction activity pollution prevention, heat island reduction, light pollution reduction, open space, and protect or restore habitat.
>
> One notable change is that the storm-water management credits are now referred to as "Rainwater Management". The credit is quite different from the previous storm-water credits, in that it allows two options for compliance: 1) percentile of rainfall events and 2) natural land cover conditions. For percentile of rainfall events, the project must manage the runoff on the site for a certain "percentile of regional or local rainfall events". For the natural land cover conditions option, the project must "manage on site the annual increase in runoff volume from the natural land cover condition to the post developed condition."
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> Another new feature is the 'Site Assessment' credit for new projects, which awards one point for projects that assess the site's condition before design for features such as topography, hydrology, climate, vegetation, soils, human use, and human health effects. The project can use the survey or assessment to make informed decisions about sustainable options for the project.

Id.

[82] *See* Moloney, *supra* note 81 (discussing the update in the Water Efficiency credit category).

> Instead of "Water Use Reduction" and "Water Efficient Landscaping", the credits are now "Indoor Water Use Reduction" and "Outdoor Water Use Reduction". While the indoor water use prerequisite and credit are similar to the "Water Use Reduction" credit from LEED 2009, outdoor water use reduction is now required as a prerequisite (with room for additional improvement with an optional credit). Previously, Water Efficient Landscaping was only an optional credit. Innovative Wastewater Technologies is no longer a credit, since its concepts have been spread among other credits in the category.
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> Water metering is perhaps the most significant update to this credit category. Building-level water metering is required as a prerequisite. Projects can meet the requirement by installing water meters for a selection of various water subsystems, such as irrigation, domestic hot water, and indoor plumbing fixtures. Pro-

> jects can earn an additional point for installing more water meters on more types of subsystems.

Id.

[83] *See* Moloney, *supra* note 81 (outlining the changes of the Energy & Atmosphere credit category).

> The Energy and Atmosphere credit category is similar in structure to the LEED 2009. It still addresses commissioning, refrigerant management, minimum and optimized energy performance, green power and renewable energy.
>
> Like Water Efficiency, Energy and Atmosphere now requires building-energy metering in a new prerequisite. The building must install a meter (or submeters) that track the total building energy consumption at least monthly. The project must commit to providing that data to USGBC for at least five years. A project can also earn an additional point for more rigorous metering and tracking of its energy usage. This is consistent with USGBC's increased emphasis on building performance, rather than just design.
>
> Another significant addition is "Demand Response". This credit awards points to projects that participate in a utility's existing Demand Response program or, in cases where they are not available, provide infrastructure to participate in a future program.

Id.

[84] *See* Moloney, *supra* note 81 (outlining the changes of the Materials & Resources credit category).

> The only prerequisites and credits that look remotely similar to the LEED 2009 version are 'Storage and Collection of Recyclables' and 'Construction and Demolition Waste Management Planning.' The new credits include 'Building Life-Cycle Impact Reduction,' and 'Building Product Disclosure and Optimization' for Environmental Product Declarations (EPD), Sourcing of Raw Materials, and Material Ingredients.
>
> The Building Life-Cycle Impact Reduction has four options: historic building reuse, renovation of abandoned or blighted buildings, building and material reuse, or a whole-building life-cycle assessment. The intention of the credit is to encourage reuse and lessen the building's environmental impact.
>
> The Building Product Disclosure and Optimization credits aim to encourage the use of products with limited impacts throughout their lifetimes, and from manufacturers that provide transparency about the product's ingredients and manufacturing processes. In LEED 2009, these credits really focused on individual features like FSC-certified wood or a certain percentage of recycled mate-

Priority,[87] and the new credit category introduced under LEED v4, Location & Transportation.[88]

> rial. These new credits attempt to capture more of a comprehensive view of the material's sustainability throughout its life cycle. They not only encourage the project teams to use more sustainable materials, but also incentivizes product manufacturers to provide better, detailed information about where their products came from, how they were produced, and what they contain.

Id.

[85] *See* Moloney, *supra* note 81 (outlining the changes of the Indoor Environmental Quality credit category).

> It still addresses minimum indoor air quality performance and environmental tobacco smoke control in its prerequisites. It also addresses daylight, views, thermal comfort, low emitting materials, and a construction indoor air quality management plan in its credits.
>
> 'Enhanced Indoor Air Quality Strategies' is a new credit in this category that builds on Increased Ventilation from the previous rating system. It does include a requirement for increased ventilation, but also for carbon dioxide monitoring, entryway systems, cross-contamination prevention, filtration, and air contamination prevention and monitoring. Depending on whether the building uses mechanical, natural, or mixed-mode ventilation, it must meet certain elements of the credit.

Id.

[86] *See* Moloney, *supra* note 81 (outlining the changes of the Innovation credit category).

> Formerly called 'Innovation in Design' or 'Innovation in Operations,' Innovation is very similar to its LEED 2009 counterparts. Projects can still earn points for using innovative strategies, achieving exemplary performance, or attempting pilot credits.
>
> There is also one point available for having at least one LEED AP with specialty as a principal participant of the project. It's important to note that this means legacy LEED APs are no longer eligible for an Innovation point.

Id.

[87] *See* Moloney, *supra* note 81 (outlining the changes of the Regional Priority credit category).

> Regional priority is essentially identical to the credit in LEED 2009. Projects can earn up to four out of six points available for using strategies identified by that region's USGBC council or chapter.
>
> Integrative Process Credits**.** While USGBC has always strongly stressed integrated project design, or "IPD", it now awards one

Each of the LEED credit categories consists of mandatory prerequisites, which are not worth any points, and credits, which are worth points.[89] The number of points a project earns from the credits

> point for using a collaborative design process from the pre-design phase through the design phases. The project team must identify potential synergies across credit categories and document how their early analyses informed their project requirements and basis of design.

Id.

[88] *See* USGBC, LEED V4 FOR BUILDING OPERATIONS AND MAINTENANCE 1-5 (2014) (outlining the different LEED credit categories available to every project applying for LEED certification); *see also* Moloney, *supra* note 81 (discussing the new credit category, Location & Transportation, added to LEED v4).

> This new credit category addresses sustainable communities and land use. Many of the credits in this category were originally found in the Sustainable Sites credit category in LEED 2009, but have been amended and included here. For example, credits include "sensitive land protection", "access to quality transit", "green vehicles", "surrounding density and diverse uses", and "bicycle facilities", all which have their slightly varied counterparts in LEED 2009.
>
> [N]ew features in this category include points for projects that build on LEED for Neighborhood Development certified sites, as well as a credit for "high priority sites". New projects can earn points for building in historic districts, on brownfield remediation sites, or on a site with "priority designation", such as a site on an EPA National Priorities List or that is sited as a Federal Empowerment Zone.
>
> LEED v4 has kept some prerequisites and credits virtually the same, but has made some significant changes to nearly every major credit category. Many of these additions, such as the water and energy metering requirements, focus on the certified building's continued performance, rather than just the design. Similarly, it encourages the use of materials that are sustainable from extraction to disposal. It has also made site selection and consideration an important part of the LEED decision-making process, and provides extra incentive for integrated project design.

Id.

[89] *See LEED*, *supra* note 80 (discussing that each of the rating systems are made up of a combination of the credit categories and within each of the credit categories, there are mandatory prerequisites each project must meet and that the credits provide points to determine the level of LEED certification that the project qualifies for).

determines its level of LEED certification as Certified, Silver, Gold, or Platinum.[90] The amount of points allocated to each credit is based on the importance of the credit's environmental impact and promotion of green technologies and practices.[91] On a 100-point scale, each level of LEED certification has an amount of points required in order to achieve that given level: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points), and Platinum (80 or more points).[92] In order to be LEED certified, all projects must meet all Minimum Program Requirements in addition to the prerequisites and the LEED credits.[93]

Once the GBCI gives a rating to the project, the owner or developer has the opportunity to accept or, for a fee, appeal the GBCI's decision regarding certification or denial of the project.[94] If the final decision is accepted, or twenty-five days pass without response, any right to appeal the GBCI's decision is relinquished and the decision is final.[95]

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[90] *See LEED*, *supra* note 80 (exhibiting the different levels available to receive for LEED certification).

[91] *See* Nancy E. Shurtz, *Eco-Friendly Building from the Ground Up: Environmental Initiatives and the Case of Portland, Oregon*, 27 J. ENVTL. L. & LITIG. 237, 270 (2012) (discussing the amount of points allocated to each of the LEED credits).

[92] *See LEED*, *supra* note 80 (providing the different levels of LEED certification and the number of points required at each level); *see also* Shurtz, *supra* note 91, at 270-71 (providing the specific number of points required for each of the LEED certification levels).

[93] *See* DeLaPaz, *supra* note 39, at 124-25 (discussing the Minimum Program Requirements needed in addition to the prerequisites and credits in order to be LEED certified). The seven Minimum Program Requirements require all projects applying to be LEED certified to:

> [C]omply with environmental laws; (2) be a complete, permanent building or space; (3) use a reasonable site boundary; (4) comply with minimum floor area requirements; (5) comply with minimum occupancy rates; (6) commit to sharing whole-building energy and water usage data; and (7) comply with a minimum building area to site area ratio.

Id.

[94] *See* Labar, *supra* note 78, at 168 (detailing the process for LEED certification and the final steps the GBCI takes in granting LEED certification); *see also Guide to LEED Certification: Commercial*, USGBC (2014), *archived at* http://perma.cc/48Y-BJHM (providing step-by-step basis for owners and developers to LEED certify their project).

[95] *See* Labar, *supra* note 78, at 168 (discussing the twenty-five day limitation to respond to the GBCI's decision); *see also Guide to LEED Certification: Commercial*, *supra* note 94 (stating the twenty-five day limitation for an acceptance of the

C. Green Legislation

1. On the Federal Level

Green legislation on the federal level became prominent during the 1970's beginning with the National Energy Policy Conservation Act in 1978, which required an energy efficiency standard for appliances if they were justified economically.[96] However, with lack of cooperation from the Department of Energy in implementing the act, the National Appliance Energy Conservation Act was enacted in 1987 to make setting appliance efficiency standards for residential appliances a statutory requirement, bypassing the reliance on the Department of Energy.[97] The issue with implementing federal energy regulations, however, is that they tend to preempt prior state energy efficiency standards already in effect.[98] Also, federal standards are usually lower than state standards for energy efficiency, which creates a problem for manufacturers when deciding which standards to follow.[99] Another effort at the federal level was when the Environmental Protection Agency implemented ENERGY STAR in 1992.[100]

GBCI's decision from an owner or developer in its regulations, in order to become LEED certified).

[96] *See* 42 U.S.C. § 6295(o) (2014) (providing amendments to the energy conservation standards); *see also* BOS., MASS., CODE art. 37-1 (2007) (detailing requirements for both privat and public buildings); NRDC v. Abraham, 355 F.3d 179, 196 (2d Cir. 2004) (establishing the fact that once an efficiency standard is published, it becomes the "established/required" standard); Julia Richardson & Robert Nordhaus, *The National Energy Act of 1978*, 10 NAT. RESOURCES & ENV'T. 62, 68, 87 (1995) (addressing that Congress gave up on a program that encouraged manufacturers to improve appliance standards voluntarily).

[97] *See* DeLaPaz, *supra* note 39, at 1220-21 (recognizing that the National Appliance Energy Conservation Act set statutory requirements for efficiency standards).

[98] *See Appliance Efficiency Standards in Detail,* CTR. FOR CLIMATE AND ENERGY SOLUTIONS, *archived at* http://perma.cc/3PPF-C3EX (stating the 1978 act preempted states from setting their own standards for home appliances incorporated in the act).

[99] *See* DeLaPaz, *supra* note 39, at 1221 (recognizing manufacturers face an issue because federal energy efficiency standards are usually lower than state ones).

[100] *See* Jonathan Martel, *Get Ready For Stricter Energy Star Enforcement*, LAW360 (July 29, 2013), *archived at* https://perma.cc/XP6P-RDK2 (discussing what Energy Star is and how it is used by manufacturers as well as consumers buying appliances with an Energy Star rating).

ENERGY STAR is a voluntary program that labels various appliances that are energy-efficient and promotes the use of the products.[101]

The federal government has played an important role in reducing pollution and hazardous waste from industrial factories and power plants by enacting the Clean Air Act in 1970 as well as the Clean Water Act in 1977.[102] The Department of Energy, in efforts to ensure that all states adopt energy-efficient codes, required all states to enact commercial energy codes following the American Society of Heating, Refrigerating, and Air-Conditioning Engineers ("ASHRAE") standard by 2004.[103] Federal standards, like the ones discussed, have been the basis for the formation of green building rating systems, including LEED.[104] The U.S. General Services Administration, in efforts to implement energy-efficient practices on a federal level, has begun to require that all federal government buildings, that are either newly constructed or being substantially renovated, become LEED certified.[105]

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[101] *See id.* (explaining how Energy Star is used and how it certifies products as well as its verification process).

[102] *See History of the Clean Air Act*, U.S. ENVIRONMENTAL PROTECTION AGENCY (Aug. 15, 2013), *archived at* http://perma.cc/MM56-8C3D (discussing the history of the Clean Air Act); *see also Summary of the Clean Water Act*, U.S. ENVIRONMENTAL PROTECTION AGENCY (June 24, 2015) *archived at* http://perma.cc/GF75-YRZJ (providing the specifications and overview of the Clean Water Act).

[103] *See* DeLaPaz, *supra* note 39, at 1222-23 (discussing the fact all states are required to enact commercial energy codes following ASHRAE standards).

> ASHRAE writes standards for the purpose of establishing consensus for: 1) methods of test for use in commerce and 2) performance criteria for use as facilitators with which to guide the industry. ASHRAE publishes the following three types of voluntary consensus standards: Method of Measurement or Test, Standard Design and Standard Practice. ASHRAE does not write rating standards unless a suitable rating standard will not otherwise be available.

Standards and Guidelines, ASHRAE, *archived at* http://perma.cc/ZRE5-UCNC.

[104] *See* DeLaPaz, *supra* note 39, at 1222 (inferring that LEED certification came about due to many of the federal initiatives for energy efficiency).

[105] *See* Edward Teyber, *Incorporating Third Party Green Building Rating Systems into Municipal Building and Zoning Codes*, 31 PACE ENVTL. L. REV. 832, 848 (2014) (stating that in 2009 all federal government buildings that are either newly constructed or being substantially renovated are required to become LEED certified).

2. On the State and Local Level

Traditionally, states delegate all land-use regulation such as zoning, planning and building codes to local governments.[106] States can increase or decrease local governments' power by amending the zoning enabling act or by adopting legislation unrelated to the enabling powers.[107] States, however, neglect concerns of energy waste in building and construction, which leads to failing to modify local land-use regulations.[108] Local governments face land use issues when trying to use their police powers to more effectively govern and implement green statutes for the betterment of the public due to ineffective initiatives enacted by national and state governments.[109] Local and municipal governments have become "testing labs" to implement green regulations, such as LEED, in both new construction as well as in the renovation of old construction.[110]

One issue with the regulation of LEED certification at the state and local level, or other environmental/green building certifications, is that there may be anti-trust violations if the enforcement of these standards are exclusive or on an exclusive list.[111] If for example, there was a statute that required buildings to have only applianc-

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[106] *See* Sarah B. Schindler, *Following Industry's LEED: Municipal Adoption of Private Green Building Standards*, 62 FLA. L. REV. 285, 293 (2010) (discussing the powers that are given to local governments from the state government); *see also* Press Release, City of Boston, Mayor Menino Announces Major Developments in Greening Municipal Operations (July 12, 2013) (on file with the City of Boston) (indicating that the City of Boston, and not the Commonwealth of Massachusetts, was responsible for implementing LEED within Boston city limits).

[107] *See* Sara C. Bronin, *The Quiet Revolution Revived: Sustainable Design, Land Use Regulation, and the States*, 93 MINN. L. REV. 231, 237 (2008) (discussing ways that state governments can limit local government powers).

[108] *See id*. (explaining how states fail to play their part in regulating land use in regards to energy waste in building and construction).

[109] *See* Schindler, *supra* note 106, at 293 (explaining that ineffective national and state initiatives limit local government's ability to utilize police powers).

[110] *See* Michael Negron, *Limited Authority, Big Impact: Chicago's Sustainability Policies and How Cities Can Push an Agenda Amidst Federal and State Inaction*, 7 HARV. L. & POL'Y REV. 277, 277 (2013) (referring to local governments as "laboratories for innovative policy making", especially in urban policy making).

[111] *See* Colin W. Maguire, *The Imposing Specter of Municipal Liability for Exclusive Promotion of Green Building Certification Systems*, 1 U. BALT. J. LAND & DEV. 157, 159-60 (2012) (explaining how a state or municipal government may face law suits if they create statutes that exclusively endorse only LEED or other green certification systems).

es that qualified under LEED standards for energy efficiency, then manufacturers would suffer economic injury.[112] The manufacturers would have to change their product, would be unable to sell merchandise and be unable to survive in the market due to the statute.[113]

D. Communities Utilizing LEED Certification and Green Regulations

The City of Chicago utilized traditional planning and land-use authorities over building codes to become the leader of green building practices in North America.[114] Chicago now has the most "green" roofs, and Leadership in Energy and Environmental Design ("LEED") certified buildings in the nation because of the city's sustainable development policy.[115] By imposing the policy on large developments, Chicago also created market incentives resulting in the accelerated adoption of green development services by architects and construction firms.[116] The sustainable policy itself is not codified in a statute; however, specific sustainability requirements are embedded in legislation on a project-by-project basis to be approved by Chicago's City Council.[117]

Chicago utilizes the use of Tax Increment Financing ("TIF") as a tool that requires developers to implement sustainable and green

[112] *See* The Air Conditioning, Heating, and Refrigeration Inst. v. City of Albuquerque, No. 08-633MV/RLP, 2008 WL 5586316, at *2 (D. N.M. Oct. 3, 2008) (exemplifying an exclusive statute because a group representing household appliance makers sued the City of Albuquerque, New Mexico, for creating a city-wide requirement that buildings should incorporate appliances that qualified under specific LEED standards for energy-efficiency).

[113] *See id.* at *5 (explaining the economic injury that the statute would cause if enforcement of the Code is not enjoined).

[114] *See* Negron, *supra* note 110, at 279 (stating that Chicago is one of the leaders in North America for building green buildings).

[115] *See* Negron, *supra* note 110, at 283 (illustrating how Chicago is one of the top cities in green utilization in the U.S.); *see also* Erin Burg Hupp, *Recent Trend in Green Buildings Law: Potential Preemption of Green Building and Whether Retrofitting Existing Buildings Will Reduce Greenhouse Gases and Save the Economy*, 41 URB. LAW. 489 (2009) (discussing the City of Chicago's requirements for LEED certification).

[116] *See* Negron, *supra* note 110, at 283 (explaining how to increase green development services by using market incentives).

[117] *See* Negron, *supra* note 110, at 284 (discussing how many green policies are not codified in statute).

construction practices.[118] TIF allows governments to subsidize current projects using anticipated future property tax revenue.[119] In Illinois, TIF is authorized under state law to promote investment in areas that meet certain conditions of underperformance and decay.[120] When a city creates a TIF district, it locks the property tax rate at present value and redirects any incremental property tax increase associated with a rise in the assessed value of property within the TIF district into a separate fund for the next twenty-three years.[121] Chicago contains 163 TIF districts that generate $500 million each year.[122] Boston, like Chicago, has expansive authority to establish TIF districts, however, Boston faces a constraint in the law's requirement that bonds issued for TIF projects count towards its overall municipal-bond limit.[123] Chicago on the other hand does not have a debt limit, allowing the city to have significantly more potential in establishing TIF districts.[124]

[118] *See* Negron, *supra* note 110, at 284 (explaining that Chicago utilizes Tax Increment Financing to help with financing green technology).
[119] *See* Negron, *supra* note 110, at 284-85 (discussing the tax implications when the government uses TIF).
[120] *See* Negron, *supra* note 110, at 285 (addressing where the state of Illinois can place TIF districts and the requirements).
[121] *See* Negron, *supra* note 110, at 285 (explaining what happens when a city creates a TIF district and how long it lasts).
[122] *See* Negron, *supra* note 110, at 285 (providing the amount that Chicago makes from the TIF districts).
[123] *See* Negron, *supra* note 110, at 285 (differentiating Boston's utilization of TIFs from Chicago's because the bonds for the projects count towards the total municipal-bond limit for Boston, where in Chicago it does not); *see also* Press Release, City of Boston, Mayor Menino Announces New Green Building Standards for Boston (Dec. 19, 2006) (on file with the City of Boston) (explaining the many advantages, including tax breaks, of implementing LEED standards into Boston's zoning code).
[124] *See* Negron, *supra* note 110, at 285 (stating that Chicago has an unlimited budget for TIF districts).

E. LEED Certification on an International Scale

Many other regions and countries are adopting LEED as a standard for new development and construction.[125] Dubai is one of the lead international cities to utilize LEED certification in many development projects.[126] A major example is Dubai's Middle East Center for Sustainable Development ("MECSD").[127] Currently in Dubai, it is proposed that all building projects must apply to USGBC for LEED ratings in order to obtain a Dubai certificate of occupancy.[128] LEED certification is also being implemented in various ways, including educational and residential purposes, in many other countries such as Argentina, Brazil, Canada, Chile, Colombia, South Korea,

[125] *See* Joseph Crea, *Green Building Japan and USGBC Collaborate on Further Adoption of LEED in Japan*, U.S. GREEN BUILDING COUNCIL (Oct. 8, 2015), *archived at* https://perma.cc/W59A-4DAE (discussing the internationalization of LEED certifications).

[126] *See Dubai Chamber wins Best Sustainable Project of the Year Award*, DUBAI CHAMBER (Dec. 31, 2014) (providing an example of one of many of Dubai's LEED certified development projects).

[127] *See Middle East Centre for Sustainable Development*, GOGREEN, *archived at* https://perma.cc/DJ36-55XJ (discussing the role that LEED plays in Dubai's Middle East Center for Sustainable Development).

> The mission of MECSD is to promote innovations, enabling sustainable development in the Middle East. The MECSD aims at promoting change towards sustainable development as a policy certification and research institution. Dedicated to effective communication of it's findings, it will engage decision makers in the government, business, NGO's and other sections in the development and implementation of policies that are simultaneously beneficial to the global economy, the global environment and the social well being in the Middle East. The Centre will enable guidelines, technical support and Green Certification within the reach of all interested parties that wish to progress on sustainable development projects in the region . . . . The centre will address: Standardization and integration of Green Building requirements within Dubai, establishing local 'Energy Efficiency' certification norms & guidelines. . .

Id.

[128] *See* THE WORLD GUIDE TO CSR: A COUNTRY-BY-COUNTRY ANALYSIS OF CORPORATE SUSTAINABILITY AND RESPONSIBILITY 426 (Wayne Visser & Nick Tolhurst eds., 2010) (discussing what builders need to do in Dubai in order to begin building projects).

India, Italy, Jordan, Mexico, Norway, Poland, Romania, Russia, Spain, Sweden, Turkey, and the Emirates.[129]

F. LEED Certification and Green Building Initiatives in Michigan

Currently in the state of Michigan, there are no statutes or case law regarding green or sustainable construction practices or initiatives.[130] Although there are no green construction statutes or case law, there are other methods utilized to ensure green construction within the state.[131] For example, because of Executive Order 2007-22, all state-funded new construction over $1 million dollars are required to be built in accordance to LEED standards.[132] Michigan as a state is also ranked 17th in the nation for highest commercial LEED projects with 489 registered and 375 projects certified.[133]

IV. ANALYSIS

As a city, Detroit has the ability to utilize green technology and LEED certification at local, state, and federal levels, both publically and privately to help revive urban decay.[134] By doing so, the city in return would gain income through incentives while being highly

[129] *See LEED International Roundtable*, U.S. GREEN BUILDING COUNCIL, *archived at* https://perma.cc/2U5T-HSUL (listing the other countries that utilize LEED certification).
[130] *See* A STATE-BY-STATE GUIDE TO CONSTRUCTION & DESIGN LAW: CURRENT STATUTES AND PRACTICES 547 (Carl J. Circo & Christopher H. Little eds., 2nd ed. 2011) (exclaiming that Michigan does not have any green construction statutes or case law yet).
[131] *See Michigan Green Construction Initiatives*, DEPARTMENT OF ENVIRONMENTAL QUALITY (2015), *archived at* http://perma.cc/YM8S-MLYU (discussing initiatives the state of Michigan is taking to promote green construction).
[132] *See id.* (explaining what Executive Order 2007-22 is and requires to promote green construction practices).
[133] *See Green Building Industry Brief: Michigan*, U.S. GREEN BUILDING COUNCIL (Jan. 2013), *archived at* http://perma.cc/VGG3-7VWZ (discussing ways in which the State of Michigan promotes green construction standards by using LEED building requirements).
[134] *See* Davey, *supra* note 35 (illustrating how Detroit has begun the process of tearing down dilapidated buildings and is going green).

ranked among other environmentally conscious cities in the world.[135] There are a few major ways cities have succeeded in implementing LEED certification and green technology on which Detroit can base its own construction and building methods.[136] Part "A" analyzes how local municipalities have authorized LEED Green Building Rating Systems as part of a city's zoning ordinance or building code and if Detroit relies on local powers.[137] Part "B" discusses how LEED certification and green technology might be handled at the state level.[138] Part "C" examines the belief that LEED certification and green technology should be handled at the federal level, with no involvement from state and local governments.[139] The last part, "D," discusses that the regulation of LEED certification on a multi-level system between federal, state and local governments may be the most successful method for Detroit.[140] While incorporating LEED Certification and green technology in each level, the environmental standpoint will be examined as well.[141]

A. If Detroit Mandated LEED Certification and Other Green Technology on a Local Level

Governing LEED Certification at a local level is arguably a good course of action because of the local government's ability to regulate through land use law, traditionally regulated by local gov-

[135] *See* Negron, *supra* note 110, at 279, 285 (examining how cities, Boston and Chicago, have successfully utilized green technology for incentives and how they brought in revenue by doing so).
[136] *See* DeLaPaz, *supra* note 39, at 1228 (explaining the three methods by which other municipalities have accomplished implementing LEED and green technology into their building and construction methods).
[137] *See* DeLaPaz, *supra* note 39, at 1228 (discussing how cities mandate LEED through zoning ordinances and building codes).
[138] *See* DeLaPaz, *supra* note 39, at 1228 (stating how other cities rely on green technology other than LEED certification though ordinances).
[139] *See* DeLaPaz, *supra* note 39, at 1228 (discussing how the state and federal levels should handle sustainable methods and not at local levels).
[140] *See* DeLaPaz, *supra* note 39, at 1228 (discussing how some argue the best way to handle sustainable methods is to do so on a multi-level including federal, state, as well as local governments).
[141] *See* Schindler, *supra* note 106, at 300 (discussing the impacts that integrating green building practices effects the environment in a positive way).

ernments through zoning, planning, or building codes.[142] Detroit's local government could use their police powers to limit private rights in real property through zoning and building codes.[143] The Matching Principle validates that the regulation of green construction at the local level is better than at state and federal levels because "environmental problems are of a purely local concern."[144] State, and more so federal governments, should not attempt to regulate green building practices because not every city faces the same problems due to geographical differences.[145] If they do, cities with fewer building-related externalities would burden from the same costs as cities with more problems, and would receive unusable corresponding benefits.[146]

Many cities have already adopted LEED certification in their green legislation at a local level.[147] With the legislation in place, the

[142] *See* Schindler, *supra* note 106, at 293 (providing the historical significance of land use law in the area of local government).

[143] *See* Schindler, *supra* note 106, at 293 (stating that governments have always used their police powers to restrict private rights in the areas of health, safety, morals, and general welfare and this can be applied to municipalities regulating the construction of green buildings).

[144] *See* Schindler, *supra* note 106, at 296 (explaining that the Matching Principle which was devised by Henry Butler and Jonathan Macey "holds that the regulating jurisdiction should not be larger than the regulated activity," and that although many people believe that global warming and environmentalism should be handled at a global (national/international) level the devisors believe "many important environmental problems are problems of purely local concern, and should be regulated at the local level").

[145] *See* Schindler, *supra* note 106, at 299-300 (arguing it is unfair to have a national "solution" because not every city faces the same inherent problems resulting in cities that do not need the intended benefits would be wasting money).

[146] *See* Schindler, *supra* note 106, at 299-300 (explaining why a federal level regulation of green construction would not work).

> This is an inherent problem with reliance on a uniform nationwide set of green building standards: the fundamental determinations of what constitutes a "green building" will be decided by a single entity without any specific consideration given to the unique environmental, social, and political concerns of different localities. To prevent the development of new buildings that continue to contribute to these localized externalities, local governments should develop individualized green building programs that seek to address and avoid their local problems as well as the larger problem of climate change.

Id.

[147] *See* Trisolini *supra* note 11, at 703 (discussing the role of local governments in mandating climate plans).

LEED Green Building Rating System creates a benchmark for green development.[148] Typically, LEED mandated green building ordinances require that public and city owned buildings achieve a minimum "Silver" LEED certification and that private buildings achieve a "Certified" LEED certification.[149] Ordinances can designate which kinds of buildings require certain certifications, whether it they are publically or privately owned buildings.[150] Cities such as Boston, Seattle, Portland, and Atlanta have implemented LEED standards into their ordinances.[151] Detroit could implement standards similar to these cities into its own legislature to ensure that LEED certified practices are being used and begin to transform itself into a modern sustainable infrastructure.[152]

1. Implementing LEED Certification for Public and Private Projects

If Detroit were to implement LEED certification in both public and private projects, it would create several benefits for its local government as well as the buildings that achieve LEED certifica-

[148] *See* Trisolini, *supra* note 11, at 704 (explaining that LEED Green Building Rating System is the benchmark for green development).

[149] *See LEED*, *supra* note 80 (providing definitions of what the "Silver" and "Certified" LEED certifications mean and how to achieve them).

[150] *See* BOS., MASS., CODE art. 37-1 (2007) (discussing that ordinances can designate green technology as a requirement for both private and public buildings).

[151] *See* Trisolini, *supra* note 11, at 704-05 (listing other areas in the United States that utilize LEED certification).

> Since 2003, Atlanta, Georgia has required all municipal buildings to be built to LEED Silver Standards. Nashville-Davidson, Tennessee requires LEED certification for municipal buildings over 2000 square feet and costing over two million dollars. Salt Lake City and Dallas mandate LEED Silver standards for city projects. In 2005, the City Council of Scottsdale, Arizona unanimously passed a resolution requiring all new city buildings to be built to LEED Gold standards. The City Council of Greensburg, Kansas - a town that was virtually wiped out by a tornado in 2007 - passed a resolution requiring that all new municipal buildings greater than 4000 square feet be built to LEED Platinum standards.

Id.

[152] *See* Alberta, *supra* note 1 (examining ways to rebuild Detroit's middle class and strengthen its economy).

tion.[153] LEED certification would not only promote energy efficiency, but would also help lower adverse environmental impacts associated with conventional building construction.[154] It would also reduce greenhouse gases and dependence on nonrenewable energy sources.[155]

Boston would be a great example for Detroit to use as a protocol because Boston was the first major city to include a green building standard in its zoning requirements.[156] Boston's ordinance requires all rehabilitated construction projects, larger than 50,000 square feet, be LEED certifiable.[157] If Detroit were to take this approach, it would improve overall public health, mitigate the effects of climate change, and save the taxpayers money and resources due to incentives and increased efficiency.[158] In Boston, the Green Building Task Force adopted LEED to follow a uniform national standard used to develop sustainable high performance buildings, allowing Boston to be on the forefront of green policies and programs.[159]

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[153] *See* Trisolini, *supra* note 11, at 704 (discussing the benefits of implementing LEED certification in both private and public sectors).

> While initial efforts focused on improved energy efficiency in municipally owned or funded buildings, increasingly cities are also creating incentives, mandates, or both for commercial and residential projects. Diverse cities employ a range of local incentives for green building, including options such as fee waivers or reimbursements, subsidized LEED fees, discounted energy star appliances, property tax abatement, awards, green loan funding, training, and permit fee reductions.

Id.

[154] *See* Trisolini, *supra* note 11, at 703 (listing why it is more advantageous to utilize LEED certification for construction rather than conventional building construction methods used by many cities).

[155] *See* Trisolini, *supra* note 11, at 706 (discussing how LEED certification would lead to reduced greenhouse gasses as well as reduce a city's dependence on nonrenewable energy sources).

[156] *See* Mayor Menino Announces New Green Building Standards for Boston, *supra* note 123 (explaining why Boston is the first major city to utilize LEED certification and other green technology in its ordinances).

[157] *See* Hupp, *supra* note 115 (stating that starting in 2007 rehabilitations within the City of Boston were mandated to conform with LEED requirements).

[158] *See* Mayor Menino Announces Major Developments in Greening Municipal Operations, *supra* note 106 (listing the different benefits ordinances involving LEED certification have on a city).

[159] *See* MENINO, *supra* note 61, at 9 (discussing how Boston's Green Building Task Force adopted LEED in order to be mainstream when it comes to green policy in the nation).

B. If Detroit Mandated LEED Certification and other Green Technology on a State Level

It also may be a good plan to mandate green building standards at the state level because local governments can only exercise power delegated to them by the state governments.[160] Local governments can exceed their authority by being preempted on state and federal levels when enacting land-use regulations.[161] States primarily designate land-use regulatory authority to local governments.[162] When using a third-party rating system such as LEED, it would be more practical to be mandated at the state level because state government could implement standards regarding conventional construction practices on a larger level than in just one local jurisdiction.[163] However, Michigan currently does not have any statutes regarding the use of LEED certification, so the state should implement statutes and regulations regarding LEED certification.[164] If it does not, cities such as Detroit could over step their authority by becoming "test labs" and using their own regulations.[165]

C. If Detroit Mandated LEED Certification and other Green Technology on a Federal Government Level

Detroit may also want to utilize the federal government to mandate LEED certification and other green technology because, traditionally, the federal government implemented environmental laws and policies.[166] Also, the federal government has the ability to over-

[160] *See* DeLaPaz, *supra* note 39, at 1240 (discussing the alternatives to local action for mandating green building standards).
[161] *See* DeLaPaz, *supra* note 39, at 1240 (explaining how local governments can go beyond the power delegated to them through state and federal levels).
[162] *See* DeLaPaz, *supra* note 39, at 1242 (explaining how local governments cannot exercise powers not granted to it by state and federal levels).
[163] *See* DeLaPaz, *supra* note 39, at 1242 (discussing why state level is the better level to mandate third-party rating systems because the local level is too narrow in jurisdiction to be effective when defining and enacting regulations).
[164] *See* A STATE-BY-STATE GUIDE TO CONSTRUCTION & DESIGN LAW: CURRENT STATUTES AND PRACTICES, *supra* note 130, at 547 (stating Michigan does not have any green regulation statutes).
[165] *See* Negron, *supra* note 110, at 283 (explaining how to increase green development services by using market incentives).
[166] *See* DeLaPaz, *supra* note 39, at 1243 (discussing how, historically, the federal government implemented environmental laws and policies).

rule state and local regulations through the Constitution's Supremacy Clause.[167] The Supremacy Clause also favors the federal level when a conflict arises between the federal government's exercise of its powers and the state's exercise of the same powers to regulate land use through its police powers.[168]

D. If Detroit Mandated LEED Certification and other Green Technology on Multi-Government Levels

A final, possible approach would be if Detroit took a multi-governmental level approach to mandating LEED certification and other green technologies.[169] By integrating the three levels, local governments can implement federal and state policies to rezone areas and create Energy Conservation Zoning Districts.[170] By establishing these districts, state and federal governments "could provide planning grants for local governments, mapping services, statistical data packages, best practices, infrastructure subsidies, technical assistance grants, and tax credits to property owners and developers."[171]

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[167] *See* DeLaPaz, *supra* note 39, at 1243 (stating that the Supremacy Clause gives the Federal Government the ability to exercise power over state and local governments).

[168] *See* DeLaPaz, *supra* note 39, at 1243 (discussing how the Supremacy Clause would favor the federal level over state and local if conflict were to arise).

[169] *See* DeLaPaz, *supra* note 39, at 1244 (explaining how a multilevel governmental approach may be the most successful to regulate and mandate LEED certification, as well as other green technologies).

[170] *See* Nolon, *supra* note 54, at 296 (explaining what Energy Conservation Zoning Districts are and how they can be used at a local level to receive federal and state incentives).

> Local officials must learn how to determine what types of buildings and energy uses should be incorporated into such a zoning district and how to change land use regulations to facilitate district energy systems, more energy efficient construction, renewable energy facilities, transit-oriented development, and other sustainability techniques. Localities need assistance in providing incentives to cover the capital costs of green buildings and district-wide systems. State and federal support for this Energy Conservation Zoning District initiative can unlock the potential these strategies have for energy conservation and climate change mitigation.

Id.

[171] *See* Nolon, *supra* note 54, at 337.

> Local governments with qualifying neighborhoods that agree to adopt the EZ District program including enhanced energy code

Even in a multilevel approach, the local government would have to be the greatest power to be effective in regulating third-party green rating system.[172] This is because applying a multilevel building code would create major issues administratively, which would unmanageable on any level but the local level.[173] Using this approach would also be costly and cause long delays moving through the levels when it comes to the permitting process.[174]

V. CONCLUSION

With the history of Detroit, from being one of the most powerful cities in the world, thanks to the automotive industry, to being the poorest city in the United States, the city is in dire need to return to the thriving metropolis it once was. By utilizing LEED certification, and other green technologies, the city can transform areas of blight and urban decay into modern top of the art energy saving and LEED certified buildings that will help bring people back into the city. This would also help to make Detroit a leading city on an environmental and green standpoint. In addition to the environmental benefits, Detroit would also to take advantage of programs, tax credits, and tax incentives by implementing LEED certification into its green construction practices. The city would be able to create revenue overtime by placing these standards into new construction and transforming the old out of code buildings. Detroit would also be able to utilize methods from other major cities that have implemented LEED certification in their building practices. Having the ability to

> adoption, effective code enforcement, TOD, District Energy System facilities, and neighborhood sustainability standards, would be eligible to participate. With state and federal support, localities willing to adopt an EZ District program could apply for planning grants, secure assistance in adopting best practices, qualify for infrastructure subsidies and, in turn, make property owners and developers in EZ Program neighborhoods available for tax credits.

Id.

[172] *See* DeLaPaz, *supra* note 39, at 1244-45 (stating that the local level of government would still have the most power, even using a multilevel approach).

[173] *See* DeLaPaz, *supra* note 39, at 1244-45 (explaining the reason local level mandating is most effective even in a multilevel approach utilized to mandate LEED certification and green technology).

[174] *See* DeLaPaz, *supra* note 39, at 1244-45 (stating the negatives of using a multilevel approach to mandate and regulate LEED certification and other green technologies).

look at all three levels of regulation and by following the precedent of other green cities, Detroit will be able to transform its exterior and match the ever-present interior spirit the people of Detroit have always had.