

Green Building Incentive Programs: Progress in Selected Cities

A Project of 350 Madison's Community Climate Solutions Team
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Incentives with a Deal

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350 Madison is a community-led environmental organization that seeks to facilitate a rapid transition to a just and sustainable world powered by renewable energies.ⁱ To achieve this future, 350 Madison has campaign teams that focus on addressing a range of environmental challenges, from taking action to oppose the continued use and financial investment into fossil fuel infrastructure to supporting ambitious climate policy at the local and state levels. The latter team, the Community Climate Solutions Team, pursues two main missions: to encourage and assist local municipal level governments and educational institutions in achieving their stated climate goals, and to increase citizen climate awareness and action across the greater Madison area.ⁱⁱ

I. Introduction

This report uses a case study approach to present how US cities are using Green Building Incentives (GBI) to reduce the amount of carbon dioxide emitted by new buildings. Green Building Incentives consist of diverse strategies that reward developers and builders who go beyond mandated building standards to produce buildings that are designed, constructed, operated and maintained to be more resource efficient. The US Green Building Council (USGBC) identifies major types of GBI are expedited permitting/reduced fees; property tax credit/exemption; technical assistance/help center; density/height bonus; loan program; and other.ⁱⁱⁱ

Green Building Incentives are of value for cities seeking to motivate the private sector to rapidly shift towards green building practices and standards. Indeed, the City of Madison's *Sustainability Plan* (2011), in stating its goal for "improving buildings and developments," identified green building incentives as its first proposed action for achieving this goal: "Create incentives (e.g., expedited permitting, decreased permit fees, etc.) for new residential construction/remodels that meet Home Performance with ENERGY STAR at the top 20% level..."^{iv}. However, as of 2021, no such incentive program has been established. GBIs became of even greater value to cities in Wisconsin as of 2013, when the state legislature passed a law that prohibits local policies/requirements that exceed the state building codes standards.^v

II. Context

The Role of Cities in Addressing the Climate Crisis

According to the United Nations' 2017 Intergovernmental Panel on Climate Change report, the world has *just short of nine years* to make significant reductions in its carbon emissions, or else risk irreparable and irreversible damage to the earth.^{vi} In response to this proclamation and a vast amount of additional research on the projected impacts of our current practices, many cities--including the City of Madison--have taken action towards setting their own carbon emission reduction goals and timelines to accomplish them. The City of Madison's *Sustainability Plan* includes the goals of reducing carbon emissions from city-owned properties by 80% by 2050,^{vii} as well as reducing overall energy consumption in existing buildings by 50% by 2030 for both the public and private sectors.^{viii} To meet these goals, Madison must rapidly improve the efficiency and equity of all sectors - in residential and commercial buildings, transportation, manufacturing and construction, agriculture and land use, and in energy generation and distribution.

This report focuses on the building industry. In the United States, buildings account for 39% of total energy use, 68% of total electricity consumption and 40% of carbon dioxide emissions.^{ix} Initiatives or programs designed to reduce emissions from new residential and commercial buildings will be a vital component of any effective climate protection strategy.^x Fortunately, the concept of green building is well established and has been implemented for decades around the

world. Defined as “the practice of increasing the efficiency with which buildings and their sites use energy, water, and materials, and of reducing impacts on human health and the environment for the entire lifecycle of a building,”^{xi} green building is an essential method for decreasing the environmental, economic and social harms of the current building sector.

Numerous green building standards and rating systems, such as Leadership in Energy and Environmental Design (LEED), Energy Star, Building Research Establishment’s Environmental Assessment Method (BREEAM) and others have been established to help mitigate the harmful environmental impacts of our buildings by promoting sustainable design.^{xii} To encourage developers to adopt green building standards, many cities have been implementing programs that use incentives to reduce initial financial barriers. These buildings not only reduce a city’s carbon footprint and cost substantially less to operate, but can be only marginally, if at all, more expensive to build.^{xiii}

Benefits of GBI Programs

Green building incentive programs decrease harm to the environment, primarily by decreasing total emissions through improved building energy efficiency as well as increased use of renewable energy sources. They also reduce landfill waste and “heat island” effects, improve water quality, and increase green space.^{xiv}

Rewarding developers for building to green standards spurs innovation and increases the demand for green building technologies.^{xv} Developer operating costs are lowered and the life-cycle economic performance of these buildings is optimized. An increase in market value of green buildings as well as faster leasing/selling rates of units^{xvi} provide additional economic benefits to developers who choose to build green. These programs can also improve the developer experience by streamlining the building process and making building green profitable. Surveys of developers indicate that, while cost motivates them, they are equally or even more motivated by incentives that decrease time to market, give them a greater degree of certainty in the plan approval process, or allow for the flexibility to build additional floors.^{xvii} Moreover, many developers prefer a voluntary incentive program over top-down requirements imposed by stricter building codes.^{xviii}

For building tenants, as noted above, the increased energy efficiency achieved by green buildings results in lower utility costs. Green buildings also provide enhanced occupant health, higher air and water quality, and improved quality of life.^{xix} In some situations, energy efficiency and/or green home certification programs are also motivating the building of low-income housing units with incentives such as tax credits and density bonuses.^{xx}

In short, cities can design GBI programs to help achieve multiple goals via one centralized program. These may include their goals for affordable housing, environmental sustainability, and more equitable, safe and green transportation, among others.

The Case Study Approach

Our research began with a detailed investigation into GBI programs within Wisconsin. Though we found a few promising programs in Eau Claire and Milwaukee, the majority of their work focused on improving building energy efficiency within municipal buildings only. We subsequently broadened our search, relying especially on the US Green Building Council's (USGBC's) master list of US cities with a green building incentive program^{xxi} and other industry reports on successful GBI programs. Conducting further research into these frequently referenced programs, we chose the five case studies presented here based on their relevance to Madison, the clarity of ordinance language and structure of the program, and variety in size and geographic location between example cities and counties.

The case studies here are organized into three categories of incentive programs that our review indicates are among the most effective and applicable to Madison:

- expedited permitting
- density bonuses
- financial incentives

For each case study, we provide information on the program's history, structure, enforcement mechanisms and success.

III. The Case Studies

1. Expedited Permitting

The process of plan review and permit issuance for new building projects is often long, delaying the onset of building and costing the developer time and money. Thus, granting expedited permitting in exchange for a commitment to specific green building criteria can be a powerful incentive for builders.^{xxii} Not only are incentives of this type popular among developers (at least in some cities), they require no direct financial input from the municipality, only the prioritization of green building projects.^{xxiii}

Seattle, WA

Website: [Green Building Website](#)

Program information: [Updated Green Building Incentives](#)

Contact information: Jess Harris, Green Building Program Manager, Seattle Department of Construction and Inspections (SDCI); jess.harris@seattle.gov

Description: According to our contact within the Department of Construction and Inspections (SDCI), Seattle offers two [incentives-based programs for new buildings](#). Speaking to builders, the City website states that the goal of these programs is to “provide assistance for your green building project by putting it ahead of others to help you meet the highest sustainability goals.” The following information is drawn from their website and an interview with our contact.

In 2008-09, former Mayor Nickels charged a committee with reducing emissions from buildings. This committee recommended that SDCI create an expedited permit incentive. The resulting Priority Green Expedited program is designed to result in buildings that achieve energy efficiency standards that are at least 15% better than required by the Seattle Energy Code. The City recently set even higher energy and carbon emission standards under the 2018 Seattle Energy Code, which reduces the appeal of this program.

In 2009, the City's Planning Department and Development Department created the ordinance-based Green Building Standard. In return for meeting certain green standards (e.g., all electric appliances, and green building certification through an approved green building rating organization), this program offers both faster permitting and density bonuses (i.e., higher floor area ratio standards specific to different city zones), as detailed in its Green Building Summary. The floor area ratio (FAR) incentive (for more on this GBI category, see below) helps achieve a second City goal--to increase housing density by adding low- and moderate-income units. "Green" requirements for participating in this program are less stringent than for the Priority Green Expedited program. The city modifies this program over time, most recently in March 2021. This revision is summarized on their website, while full details can be found in their "director's rule" document.

A third incentives program, offered in 2009 and 2018 respectively, is their Living Building Pilot & 2030 Challenge Pilots. This program is set to expire in 2025 and is available for only 20 projects. As of April 2021, 8 slots are left. Criteria for participating in this program are much more stringent than for the other programs and the incentives are additional floor area and height.

Enforcement: The Department of Construction and Inspections (SDCI, led by our contact, Jess Harris) is regulatory and thus both administers and inspects each participating project to verify compliance and to issue penalties for non-compliance.

Outcomes: Since 2009, between 150-200 builders have participated annually in the Priority Green Building program. This number comprises about 25% of all building permits that are eligible (categorized as complex new construction). These builders received their permits between 2-4 months faster than non-participants seeking the same types of permits. A similar number of builders have participated in the Green Building Standard program. There are no results yet for the Living Building Pilot & 2030 Challenge Pilots program.

Analysis: According to our contact within the Department of Construction and Inspections, Seattle's Priority Green Expedited program is considered a "business practice" of the SDCI, whereas the Green Building Standard program, developed by the Planning Department and Development Department, was created by a city ordinance. The SDCI coordinates with the Planning and Community Development Department and the Office of Sustainability and Environment, both of which are Offices of the Mayor. The Seattle public learns about green buildings through signs on buildings certifying that they are "Built Green," or through the Northwest Coast Multiple Listing Service, which allows users to filter for "Green Buildings."

Chicago, IL

Website: [Green and Solar Permit Incentives](#)

Program information: [Green Permit Program Benefit Tier Structure](#)

Contact information: (See “Note,” below.)

Description: Chicago’s Green Permit Program offers quicker turnaround on the city’s permit process for buildings that meet certain sustainability standards. Residential, institutional, or commercial buildings achieving either LEED or Green Globes certification and committing to a number of sustainable initiatives are eligible for a priority review process and expedited permitting, with permits issued in less than 30 business days. The Program has two tiers: Tier I offers expedited permitting only in exchange for lower levels of sustainability certification. Tier II offers both expedited permitting and fee reductions of up to \$25,000 in exchange for a higher level of sustainable commitment; for example, LEED Silver certification instead of basic LEED certification. A complete list of requirements and benefits for each building type is available in the *Program Information* link above.

Enforcement: We were unable to find information about enforcement mechanisms.

Outcomes: The City of Chicago offers little information on the history or successes of its Green Permit Program, but other sources mention its early successes. In 2007, the National Association of Industrial and Office Properties (NAIOP) conducted a small survey of local government officials, developers, and architects on GBI incentives programs in the United States. Chicago was the most-frequently reported success case for green building incentives among respondents.^{xxiv} Chicago is also a known leader in green roofs. According to 2018 research by the green roof industry’s Green Roofs for Health Cities, the City of Chicago ranks second in North America for green roof coverage, behind only Washington, D.C.^{xxv}

Note: We are uncertain whether the Chicago Green Permit Program is still in use. Information about the Green Permit Program is still available on the City of Chicago’s website, but has not been edited since 2012 at the latest. When we dug into data on permits available through the City’s data portal, we found evidence through staff notes that the permit was in steady use between 2008 and 2013, but found little evidence of green permits afterwards. We see two possibilities:

- 1) The green permit system is now so ingrained in the permit process that special note is not taken when permits are expedited through the Green Permit Program.
- 2) The program still *technically* exists, but it is rarely or never used.

We tried and failed (possibly due to telework issues during COVID) to make contact with Chicago planners to determine the status of their Green Permit Program. We chose to retain this case study in hopes that Madison staff planners have better luck in contacting Chicago staff post-COVID. Even if the program has lapsed, the Chicago planners may have useful information on what factors led to the program’s end.

2. Density/Height Bonus

It is often advantageous to developers to build a greater number of floors, as increased vertical space creates more units to be rented without the developers having to purchase additional land. Having more units to rent in turn increases developer profits. Many cities, for aesthetic, cultural or other reasons, impose a limit on building height. However, some cities have seen significant success in incentives programs that allow for a percentage increase in the Floor to Area Ratio (FAR) of a building project when the developer agrees to incorporate a set of green building practices in their design. This type of incentive, as with expedited permitting, requires little to no financial investment by the city.^{xxvi}

Arlington County, VA

Website: [Green Building website](#)

Program information: [2019 Program Update](#)

Contact information: Green Building Program Manager Joan Kelsch, Jkelsch@arlingtonva.us

Description: The Arlington County Green Building Incentive Program began as a pilot program in 1999. The pilot offered up to .25 floor-to-area ratio (FAR) bonuses for office buildings receiving LEED Silver certification. In the 20 years since its inception, the Green Building Incentive Program has updated its scope and standards five times, most recently in 2019. Under the 2019 version, multi-family residential and commercial buildings can receive anywhere from .25 - .70 FAR bonuses under five different sustainability commitment categories. The least-stringent category requires: LEED Gold or Earthcraft certification, above-standard improvements in energy efficiency, 10 years of post-occupancy energy benchmarking and performance, and multiple other baseline standards to advance county goals. The highest categories require Net-Zero energy or carbon certification by an accepted creditable organization. Developers must also choose from a “menu” of additional sustainability options on top of the baseline requirements for each category, with options as widespread as EV charging stations, onsite renewable energy, non-combustible heating and ventilation options, or inclusion of affordable housing.

Enforcement: To ensure that buildings moving through this program comply with expectations, developers post a financial security before receiving their final Certificate of Occupancy. The financial security is calculated based on the amount of bonus floor space received through the program and the average rental rate in the building’s area. Developers receive 50% of the financial security back after receiving their approved level of LEED certification, and the other 50% back after meeting their approved Energy Star certification. Buildings that meet some, but not all, of their agreed-upon sustainability promises forfeit some or all of their security to the County, based on a sliding scale.^{xxvii}

Outcomes: Arlington’s increasingly stringent requirements for program participation came gradually, due to high demand for the incentives and growing acceptance of sustainable building practices in Arlington. Since 2001, the first year a building received density bonuses through the Program, roughly two-thirds of *all* qualifying developments in the county have applied for LEED certification through the Program.^{xxviii} The 2020 Arlington Green Building

Program calls for policy updates every three to five years to keep the program up-to-date on emerging technologies and trends, and includes an automatic update that takes effect without any further action in 2023.

Analysis: Arlington is a very small, very dense county with high land and real-estate prices, due to its close proximity to Washington, D.C. The county has 237,000 people living in a 26 square-mile area (with no undeveloped border lands available), compared to Madison's 260,000 in roughly 77 square miles. In this context, offering developers additional density, and therefore additional long-term rents, is a significant incentive on its own. In 2003, the county also established the Green Building Fund, which adds a further financial incentive to sustainable development. Developers are (currently) required to contribute \$0.45/sq.ft to the Fund, with all contributions being used exclusively for education and programming related to green building. Sites that apply for LEED or Energy Star within 18 months of receiving their last Certificate of Occupancy are refunded this money.^{xxix} Arlington's experience highlights the need for continuous commitment to incentive programs. For example, the pilot program received a lot of interest, but only one building completed the program.^{xxx} Instead of folding, the program used the experience and feedback from the pilot to inform its 2003 updates, and has included periodic updates to adapt to local and state conditions ever since.

Bloomington, MN

Website: [Bloomington Planning Division Website](#)

Program information: [Bloomington Code of Ordinances](#)

Contact information: Glen Markegard, City of Bloomington Planning Manager;
gmarkegard@bloomingtonmn.gov

Description: Bloomington's city zoning code has a floor area ratio (FAR) bonus within the High Intensity Mixed Use with Residential (HX-R) District. The FAR bonus encourages a variety of objectives, including affordable housing and sustainable development, for commercial and residential buildings within one-half mile of high frequency mass transit. Buildings that obtain LEED certification are eligible for up to one-half square foot additional floor area per square foot of floor area depending on the level of certification (up to a maximum FAR bonus of 1.0). Adopted in 2004, the incentive was applied to a district with multiple light rail stations where the city wanted to encourage high density.

Enforcement: Building permits are not issued until (1) an independent inspector verifies that the construction plans can reach the LEED certification level stated and (2) certificates of occupancy are not issued until USGBC grants LEED certification to the building.

Outcomes: According to the city's Planning Manager, Glen Markegard, very few buildings have used this incentive.

Analysis: Markegard, the Bloomington Planning Manager, speculates that there could be various reasons for the low usage of the green building incentive by developers. Bloomington only recently hired its first full-time employee dedicated to sustainability and therefore has not

had the resources to promote the incentive. Potentially even more impactful may be the high minimum required density in the district, creating a situation where the developers neither want nor need the incentivized extra floor area to meet their financial goals for the project. Markegard stated that a few developments had qualified for the bonus in the past and the developers chose not to use it because they didn't need it. He recognized this as a potential barrier to the success of the program, but noted that the city didn't feel comfortable setting the required density any lower because it was a priority to have high density development near the light rail.

3. Financial Incentives

Financial incentives come in many forms and are often included as components of other incentives programs. They are most commonly categorized as direct incentives that involve a form of monetary payment to developers who commit to certain green building standards, though the municipality's financial input is often countered by an increase in the assessed property value of the city.^{xxxii} Types of financial incentives include: tax credits, tax abatements, grants, feebates, utility rebates, fee reductions, and revolving loan funds.^{xxxiii}

Baltimore County, MD

Website: [Code of Ordinances](#)

Program information: High Performance Buildings Tax Credit; High Performance Homes Tax Credit; Energy Conservation Devices Tax Credit

Contact information: Unable to reach Baltimore County Planning or Finance Divisions

Description: Since 2006, the Baltimore County Code has defined a High Performance Buildings Property Tax Credit available to sustainable commercial buildings (including large residential buildings of 50 units or more). To receive the credit, buildings must be certified at minimum LEED Silver or National Green Building Standard (NGBS) Silver. The percentage of the tax credit and its duration depend on the level of rating achieved and type of construction, up to 80% for five years. Additionally, when ownership of the building changes, the credit continues. Over time, the county property tax credits were expanded to include existing buildings, homes and other credit types. The High Performance Homes Tax Credit, which lasts three years, focuses on energy efficiency and is given if the building achieves LEED or NGBS certification or reaches a certain Home Energy Rating System (HERS) number. Finally, the Energy Conservation Devices Tax Credit awards single and multi-family residential buildings for using solar or geothermal infrastructure. The credit helps cover a portion of the cost of the installation or operation, up to \$5,000. This credit does not transfer when ownership changes.

Enforcement: For commercial buildings, building owners must supply documentation from an energy systems professional proving the building is a High Performance Building under LEED or NGBS rating systems. For homes, owners must have certification of their properties efficiency from the builder or contractor. For the Energy Conservation Device tax credit, owners must submit receipts and electrical inspection permits.

Analysis: While these tax credits are still listed on the County’s website and in the County Code, we were unable to reach anyone to confirm they are still in use today or learn about the success over time. Multiple reports published and updated between 2009 and 2020 referenced Baltimore’s tax credits but did not give information on program outcomes.^{xxxiii} The addition of new tax credit bills over time that cover a broader range of construction and building types indicate that the incentives had continued commitment through at least 2012 (High Performance Homes), 2013 (High Performance Buildings), and 2015 (Energy Conservation Devices). One source also indicated that the program is reviewed annually by the County Council.^{xxxiv} This information gives little insight into the utilization of the incentives or the County’s commitment to them in the past five to ten years.

According to the county website, there are many applications to the Energy Conservation Devices Tax Credit each year and not enough funding for them all. The county created a wait list for approved projects and notes that building owners may not see the credit for five years after approval because of funding limitations. Given the \$750,000 annual budget and the \$5,000 maximum reward, this indicates high utilization of this tax credit.

IV. Key Take-Aways: Barriers and Successes

From interviews with local Madison stakeholders to research into the case studies presented here and numerous others (see Appendix A), we identified common barriers that green building incentive programs must address to achieve sustained success. We also noted common strategies for addressing these barriers. We present these key take-aways below.

City Staff Commitment and Leadership

One theme that emerged is that successful programs have strong and sustained leadership. Many of the GBI programs we learned of could not be used as case studies because the program had lapsed - sometimes without even being removed from the city website. A common reason for this was that city staff who had created and/or been responsible for these programs had left or been reassigned, leaving these programs without a champion to revise, improve, and thus sustain them. The successful programs, by contrast, had leaders who stuck with the program for a sustained period of time, and were able to convince all involved that the program was important enough to warrant the ongoing commitment of city staff time. The process of “convincing” entails not only sustained commitment and enthusiasm, but also effective management of many organizational processes and responsibilities, ranging from developing an effective program design, to establishing and continually updating a website interface for developers and citizens, to ensuring that standards for project eligibility and compliance are met, to documenting program procedures to enable leadership hand-off, among other things. Moreover, where these responsibilities are held by more than one department, it is necessary to establish procedures for cross-departmental coordination and communication, as noted by a program leader in Seattle.

Stakeholder Buy-in and Inclusion

Research on green building programs as well as case study interviews and local interviews indicated the importance of including various stakeholders in the decision-making process when creating policies. Surveys of developers have shown they are more likely to buy into GBI programs when given the opportunity to play a greater role in the decision-making process, both during the initial design of a program and throughout its life. It's beneficial to talk to developers to gauge which incentives they would be most amenable to, what resources may be of greatest use to them in achieving green buildings standards (e.g., a website to assist developers with finding reliable instructions on green building criteria), and which GBI program would most interest them.^{xxxv} In addition to getting input on the GBI program itself, developers may bring forth other barriers to sustainable development that the city could help address, such as a lack of trained labor in new sustainable technologies and building techniques.^{xxxvi}

The planning manager of Bloomington, MN, indicated that during the creation of their incentives program, the planning department worked closely with a developer who had projects in the works. Arlington County also involved developers in the process of creating a GBI program. When the program first piloted, it only received 3 applications. The program leaders therefore decided to engage developers to understand what might not be working and revised it accordingly. Through this collaborative process, the program began to thrive. Multiple interviews with local Madison leaders yielded the advice to not only engage with developers, but to build relationships between city elected officials, city staff, the business community, and design and construction professionals. Building these relationships can help mitigate potential issues and find strong advocates for the cause.

Educational Resources for Developers and the Public

We learned that the success of GBI programs depends, in part, on the easy availability of good information, both about the city's green building incentive program and about general green building techniques and their actual costs relative to prevailing techniques. The importance of these types of information is confirmed by the findings of a NAIOP (The Commercial Real Estate and Development Association) survey that asked developers what they found to be the most significant barrier to the rapid growth of green buildings. Perceived higher cost was the most commonly cited barrier (41%), followed by lack of knowledge on how to build green (18%).^{xxxvii} From our research, we identified that developers and relevant city staff also need current information about the criteria developers must meet in order to receive the incentives, timelines for implementation and inspection, and penalties for non-compliance.

In addition, we learned that to promote community-wide change, city staff need to ensure that the public can easily find basic information about the types and value of GBI techniques, and about the health, environmental and economic advantages of green buildings for building owners and residents and for the city at large. This is especially important for a city with large renter populations like Madison. A 2016 Freddie Mac survey found that a larger proportion of renters are concerned about rising utility costs than about rental costs. Among surveyed renters, 88% said that living in a building with water-saving and energy-efficient features would help

lower their utility bills, and 47% stated their willingness to pay higher rent to live in a green building.^{xxxviii} However, information on renters' expected monthly utility payments are far less transparent than rental costs. Ensuring that potential renters can access reliable information on their expected utility costs, how eco-friendly their building is, and how efficient each buildings' appliances are, could help renters make more informed decisions on where to live.

In short, a high-quality website and other information channels, designed for both developers and the broader public are important strategies for ensuring successful and sustained GBI programs.

Local Context and Interrelated City Goals

Though this report focuses specifically on the benefits and challenges of green building, cities are constantly balancing multiple goals, plans, and crises. Many of these goals are related to, and interact with, sustainable building measures. Expanding affordable housing and strengthening multimodal transportation were frequently mentioned as explicit goals in and of themselves, and as key policies in cities' sustainability initiatives. Some programs explicitly integrated incentive options like affordable housing or transit infrastructure into their green building program, while others instead passed many separate policies that would work towards a holistic goal.

The City of Bloomington exemplifies the holistic view of sustainability in housing and transportation. Bloomington uses a density height bonus GBI program to encourage sustainable, dense development specifically around the fastest transit system in the city, thereby ensuring more housing and mixed uses in areas where people have easy access to them. In this scenario, Bloomington did struggle to find the right level of density to require versus incentivize, so it bears the lesson of keeping local context in mind. In that regard, Bloomington's planning manager stated that when Minneapolis implemented a density bonus incentive, it thrived based on its local economy and demand.

Other case studies included multiple goals within their green building policy directly. Arlington, for example, included affordable housing as one of the "menu options" that could gain developers even more bonus floor-area-ratio incentives. Seattle, a city also facing an affordable housing crisis, similarly included measures to improve access to affordable housing through their GBI. While both cities also have separate policies on affordable housing and transportation, they saw the value in including these issues alongside sustainable development incentives. One benefit of this integration is that it may tap into wider community support. Yet, it is also possible that including many goals under one policy could slow the process. Public comments on Arlington's 2020 update of its Green Building program demonstrate the potential difficulties with expanding program requirements outside of narrower goals of sustainability. The 2020 proposed GBI update included equity requirements for developers. The number of public comments related to the proposed equity criteria (14 comments on equity, versus 6 for requirements on rooftop solar) suggest that GBI can also become more controversial by including hot-button issues.

The City of Madison has many pressing issues, and is already working on policies to improve transportation access, increase affordable housing stock, enhance equitable access to services and amenities, and prepare for a changing climate, among many others. Madison has an opportunity to consider how sustainable development could produce positive results in these arenas. Whether a GBI program is integrated within policies for these other efforts or stands alone, considerations should be made to ensure efforts for each issue work together to support interrelated goals.

Recurring Updates and Improvements

Our two most successful case studies - in the City of Seattle and in Arlington County - suggest that continuous updates are critical for long-lasting success in green building incentives. These GBI programs have been going strong for 13 and 20 years, respectively. Both frequently adjust their GBI program as market and political conditions change. Indeed, Arlington's pilot program was *not* initially successful, but thrived after staff implemented changes based on developer/stakeholder feedback.

In comparison, none of the case studies with uncertain or more limited success included specific review periods or triggers for updates. It is possible that the correlation of continuous improvement with success may just indicate commitment to the program, but it is notable.

Both Arlington's and Seattle's GBI programs evolved over a period of rapid market change and technological transformation in sustainable building. For example, LEED certification began as a pilot in 1998, just one year before Arlington's own GBI pilot began, and is now an internationally recognized standard.^{xxix} Both cities' energy and building codes have also been updated multiple times since their programs began, often converting previously-incentivized behavior into a requirement for all buildings. In particular, Arlington's GBI program requires review periods every 3-5 years, or any time the LEED rating system is updated. There are also automatic updates that take effect on a specific future date if no explicit update is passed.^{xi} Seattle's expedited permitting program required energy efficiency standards that were 15% better than the City's required energy code until 2021, ensuring that their incentives would get more stringent when city code updates were passed without any explicit changes required. Seattle still includes explicit updates when large changes in the energy landscape occur, including a recent update in April 2021.^{xii}

V. Why a GBI Program Can and Should Happen Now

We conclude by imploring the City to use this report as a resource to begin action steps toward encouraging sustainable elements in new buildings in Madison. The programs in Arlington and Seattle exemplify success stories and prove it is possible to drive private development change through incentives. They also make clear that it takes time to develop, implement, and continuously improve such a program to achieve the level of success seen in those cities today. These programs, as well as most of the others researched, began in the early 2000s. Although Madison is behind, a benefit of starting now is that the city can learn from others' failures and

successes. Starting immediately, however small, is imperative so that the city can embrace the process of trial and error and help push the cultural change needed for broad public and stakeholder embodiment of sustainable development.

Given the recommendations for green building incentives in Madison's 2011 *Sustainable Madison Plan* and numerous recent recommendations for and interest in incentive strategies by city staff and private stakeholders, a Green Buildings Incentive program would be a viable and celebrated path forward for the city right now. The city is positioned for success with the current sustainable leadership by the Mayor, sustainability staff, alders, and commissioners. Interviewees in the Madison business and development communities also stated interest in helping create such incentives programs. With the post-pandemic lens of recovery and improvement, now is the time to reflect and make changes.

Madison has recently taken action or is in the midst of considering policies for various issues such as climate adaption, affordable housing, transportation, and social justice, all of which are interrelated with sustainable development and should not be considered in silos. As new policies are created, consideration could be given to how sustainable development would amplify the positive effects of these other issues and how they can be considered together. For example, as Madison implements the Bus Rapid Transit system, an overlay district containing development within one half mile of the BRT route would benefit greatly from sustainable incentive. Because this area likely will see substantial new development, including housing, green building incentives can help achieve healthier interior and exterior living environments, more affordable utilities, and more equitable access to important resources.

While there are many important city goals, sustainable development must not fall behind the others. Madison is a leader in certain areas like bicycle infrastructure, but weak in promoting radically reduced emissions from new buildings. With the rapid progression of climate change,^{xiii} immediate action is needed in the form of local policy. The residents of Madison are looking to the City for meaningful, documented progress towards its stated climate goals, not only for city-owned properties, but for the community at large. Enacting a GBI program in Madison would be an excellent way to address emissions from new building developments, thereby furthering the City's progress towards accomplishing its climate goals while also responding to citizen expectations. As stated at the outset, a Green Buildings Incentives Program is especially valuable for Madison, given Wisconsin Act 270, that preempts local ordinances that exceed the currently weak state building codes. As an optional program, GBI can help developers who value sustainability to act on that vision by leveling the economic field between them and developers who choose not to participate in implementing sustainable techniques and technologies. GBIs can be a promising route forward for the City of Madison, among other viable options toward dramatically more sustainable development. The City needs to consider its local context and goals to determine what is achievable, but regardless of the path chosen, committed action is needed now.

VI. Appendix

A. Frequently Referenced Resources:

- [Survey of Local Government Green Building Incentive Programs for Private Development](#), by the Land Use Clinic, University of Georgia Law
- [Green Building Incentives: A review](#) by Olubunmi published in the journal, Renewable and Sustainable Energy Reviews
- [USGBC Green Buildings Incentives program spreadsheet](#) created by the U.S. Green Building Council
- [State and Local Green Building Incentives](#) by Local Leaders in Sustainability
- [Green Building Incentives That Work: A Look at How Local Governments Are Incentivizing Green Development](#) by the National Association of Industrial and Office Properties Research Foundation

B. Other Resources of Potential Use:

- [Local Government Policy Examples: Expedited Permitting](#) by the Better Built Northwest Energy Efficiency Alliance
- [Guide to Certification Program-Government Partnerships](#) by the Better Built Northwest Energy Efficiency Alliance
- [Good to Know: Green Building Incentive Strategies](#) by the U.S. Green Building Council
- [Incentives and Financing for Efficient Buildings and Renewable Energy](#) by the American Council for an Energy-Efficient Economy
- [Database of State Incentives for Renewables & Efficiency](#) by DSIRE NC Clean Energy Technology Center

Endnotes

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- ⁱⁱⁱ See exportable CSV of US incentive programs, maintained by the US Green Building Council, at https://public-policies.usgbc.org/policy-index?search_api_views_fulltext=
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- [Green Buildings Don’t Have to Cost More](#), Building Design and Construction, May, 2017.
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- ^{xv} USGBC. “Good to Know: Green Building Incentive Strategies.” *U.S. Green Building Council*, 2 May 2014, www.usgbc.org/articles/good-know-green-building-incentive-strategies-0.
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- ^{xvii} *Green Building Incentives That Work: A Look at How Local Governments Are Incentivizing Green Development*. pp. 12.
- ^{xviii} Yudelson Associates. National Associate of Industrial and Office Properties, 2007, pp. 14, *Green Building Incentives That Work: A Look at How Local Governments Are Incentivizing Green Development*.
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^{xxvii} See page 15 of [2019 Program Update](#) for enforcement details.

^{xxviii} See Background, page 2, of [2019 Program Update](#).

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<https://www.cleanenergyauthority.com/solar-rebates-and-incentives/maryland/baltimore-county-property-tax-credit-high-performance>

and

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[com.ezproxy.library.wisc.edu/&httpsredir=1&article=1010&context=landuse](https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=https://scholar-google-com.ezproxy.library.wisc.edu/&httpsredir=1&article=1010&context=landuse)

^{xxxv} *Green Building Incentives That Work: A Look at How Local Governments Are Incentivizing Green Development.* pp. 13.

^{xxxvi} In two separate survey initiatives on the barriers to green building, interviewed developers cited supply chain and/or construction knowledge as difficulties in green building. See

https://web.pdx.edu/~cgriffin/research/cgriffin_greening_text.pdf and

<https://www.naiop.org/en/Research-and-Publications/Reports/Green-Building-Incentives-That-Work> for more information.

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