MINNESOTA MUNICIPAL SUSTAINABLE BUILDING POLICIES GUIDE

Policy Framework and Implementation Recommendations

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OVERVIEW

Cities throughout Minnesota seek to improve public health, environmental justice, and environmental and economic sustainability. As cities set targets to reduce carbon emissions, reduce waste, protect natural areas, and mitigate stormwater runoff, many are turning to building-related strategies to help achieve these goals.

Generally, cities have three main levers to create change: mandatory requirements, process incentives, and financial incentives. Because the State of Minnesota sets the building code, cities are unable to establish building requirements that are more strict than existing code; however, with financial levers and authority over land use, cities have tremendous potential to use sustainable building policies as a tool to make progress toward sustainability goals.

To date, Minnesota cities have taken three approaches in the application of sustainable building policies, listed below in order of impact:

1. **Mandatory approach (Recommended).** This policy approach identifies default sustainability requirements for funding programs and land use variances above certain thresholds. These requirements are in addition to other program and land use requirements.
2. **Scoring approach.** Buildings are scored on a set of criteria and those with the highest scores qualify for city program funding and approval.
3. **Suggestion approach.** Developers are strongly encouraged to consider sustainability in construction through a sustainability questionnaire.

Based on research of existing policies and interviews with Minnesota cities, we identified best practices and recommendations for creating a framework and implementing a mandatory sustainable building policy.

The intent of this guide is to provide a resource for cities considering sustainable building policies and to encourage standardization across cities. Standardization has many benefits including improving efficiency and cost-effectiveness across the region, facilitating the adoption of sustainable building practices, and reducing competition among cities for development.

Sustainable Building Policy Defined

Sustainable building policies establish minimum sustainability criteria that go beyond existing state code for new construction or significantly renovated developments. Included criteria typically target areas for pollution reduction and resource conservation. Also known as green building policies.

Existing Policies

As of 2020, seven Minnesota cities have some type of formal sustainable building approach: Duluth, Edina, Maplewood, Minneapolis, Rochester, St. Louis Park, and Saint Paul.

The affected building types, triggers, and criteria vary by policy, although some standardization is taking shape. See the *Appendix* for detailed comparison of the policies.

POLICY FRAMEWORK GUIDE

A policy framework addresses the fundamental questions of "what" and "who" — what does the policy cover, who does this apply to, who manages the policy, and what happens with non-compliance.

Identify City Overlay and Applicable Rating Systems

The first step is to understand the universe of existing third-party green building rating systems.[1] Such rating systems provide processes for developers to achieve the city's aims. Rating systems are often similar but not identical. For that reason, the city should note the strengths and weaknesses of the rating systems relative to one another and make a list of priority impacts the city wants to target. That list, along with considerations of other city goals, becomes a city overlay — a set of specific measurable minimum requirements that go beyond the base construction code and may exceed a standard's requirements.

City Overlay: **Rating System: MN**
Single Family   **Green Communities**

DOE Zero Energy Ready Homes

Water conservation, waste diversion, indoor environmental quality, etc.

ENERGY STAR® certification
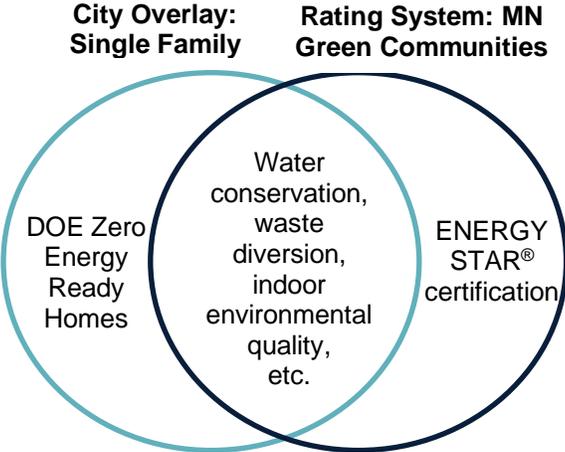
Figure 1: Example relationship between the city overlay and an existing rating system for a single-family home new construction. A development must comply with everything in the city overlay. For many components, the MN Green Communities rating system meets the city's criteria. However, as this example shows the city is specifically targeting higher building performance with DOE Zero Energy Ready certification.

Applicable rating systems and the overlay should both be included in a policy. The two work in tandem, giving the city high-level policy customization, while giving developers flexibility in how to meet the targets. One benefit for the city is that using such rating systems lessens the need for specialized staff. In addition, leveraging existing rating systems that are well known in today's construction industry allows for ease of communication and cost-effectiveness of implementation.

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[1] Green building rating systems — sets of sustainability criteria with detailed and proscriptive pathways for meeting the criteria. They are generally broad covering many sustainability areas (e.g., water, energy, waste, materials) and can include topic focused standards (e.g., Sustainable Buildings 2030 energy standard).

Leverage existing third-party rating systems

Cities with existing sustainable building policies recognize the value of standardization across the region — the more ubiquitous the rules, the more practiced the industry becomes at complying with them and the more cost-effective implementation becomes. Because of the unique characteristics of different building types, policy requirements should specify the appropriate rating system for each building type. The table below shows the most common and recommended minimum rating systems and their associated levels by building type.

Municipal, Commercial, Mixed-Use, Industrial	• LEED for New Construction and Major Renovations; Certified Silver or higher • B3 Guidelines
Multifamily	• LEED for New Construction and Major Renovations; Certified Silver or higher • B3 Guidelines • GreenStar Homes; Certified Silver or higher • Green Communities *
Single-family	• LEED for Homes; Certified Silver or higher • MN GreenStar; Certified Silver or higher • Green Communities*
Parking	• Park Smart Silver

*For projects with MHFA funding, it is recommended that the MN Overlay version be used.

Establish City Overlay Criteria

Below we lay out the most common overlay criteria. Where possible, criteria are performance-based, which gives developers flexibility, and drives innovation and cost efficiencies. Cities should prioritize criteria for adoption that balance needs for implementation with city goals to ensure policy success.

It is also important to note that as environmental and economic conditions change, flexibility within each criterium is valuable. For that reason, it is recommended that a department director be charged with promulgating the detailed overlay requirements. It is also critical to include a third-party verification component in the policy. Verifiers should be proposed by the developer and acceptable to the city.

Recommended Overlay Criteria	Recommended Rule
Predicted and actual energy use	Meet SB 2030 Energy Standard through design and operation; for 1-3-unit buildings, meet DOE's Zero Energy Ready Homes standard.
Predicted greenhouse gas emissions	Calculate and report.
Predicted and actual use of potable water	Achieve 30% below the water efficiency standards of the Energy Policy Act of 1992.
Predicted use of water for landscaping	Achieve 50% reduction from consumption of traditionally irrigated site.
Utilization of renewable energy	Evaluate 2% of on-site renewables; install if cost-effective using SB 2030 guidance.
Electric vehicle charging capability (if parking is included)	Install conduit that allows charging stations to be installed at a future date.
Diversion of construction waste from landfills and incinerators	Achieve 75% diversion rate
Indoor environmental quality	Use low-VOC (volatile organic compounds) materials including paints, adhesives, sealants, flooring, carpet, as well as ASHRAE thermal and ventilation minimums.
Stormwater management	Adhere to quantity and quality requirements, including infiltration rate, suspended solid, and phosphorous reductions.
Resilient design	Document a design response to several identified potential shocks and stressors such as utility interruption, extreme rainfall and transportation interruption. Design Team shall integrate the identified strategies into the design of the project.
Ongoing monitoring of actual energy and water use	Benchmark using ENERGY STAR® Portfolio Manager annually.

Policy Triggers

Given the regional competition for development, cities often balance priorities of encouraging development while achieving community-wide goals, such as sustainability targets. For this reason, we 1) encourage the greatest number of cities to adopt similar sustainable building policies to standardize the practice across a region, and 2) recommend cities consider their unique leverage points for the greatest impact. Cities can use the following triggers to activate a sustainable building policy:

1. **Funding incentives.** The most straightforward trigger is a developer's request for public funding. To date, several cities have successfully used a minimum trigger of $200,000 in cumulative public funding. The types of qualifying funding sources vary. We recommend maximizing public funding sources for the greatest impact. (See examples below.)

2. **Land use incentives.** Though there is little track record of this approach for sustainability in Minnesota, it is used in other areas of the country. For cities with established zoning rules, we recommend cities consider three types of land use triggers:

   a. Planned unit development (PUD). Where a city has a large tract of land for development, it can set high-level density and other rules, such as a sustainable building policy, for the site, while giving the developer flexibility in how that is accomplished.
   b. Premiums. Setting clear expectations for developers can reduce costs and encourage specific types of development. We recommend cities consider codifying sustainability premiums as an incentive for density and height bonuses.
   c. Variance. Where not codified as premiums, cities should consider applying a policy when more intense variances are requested.

> **Funding Sources**
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> Comprehensive policies count all public dollars toward the threshold that triggers compliance including:
> 1. Community Development Block Grants (CDBG)
> 2. Bonds
> 3. Tax Increment Financing (TIF)
> 4. HOME Investment Partnership Program
> 5. Housing Redevelopment Authority funds
> 6. Land write-downs
> 7. Low-Income Housing Tax Credits (LIHTC)
> 8. A dedicated Sustainable Building Policy fund
> 9. Any other Federal, State, Regional (e.g., Met Council), or City funding source

3. **Process incentives.** Cities can create faster approval processes and higher prioritization in permit and inspection reviews for developments that adhere to the sustainable building policy. This has not yet been tried in Minnesota but has been done elsewhere.

4. **Building size.** Because larger building developments have the greatest environmental impact and more sophisticated design teams, we recommend that a policy apply to buildings that meet the following size thresholds. This trigger is only activated when a project receives a funding, land use, or process incentive.

   a. New construction of 10,000 square feet and greater.
   b. Significant renovation of buildings 10,000 square feet and greater that include a new heating, ventilation, and air conditioning (HVAC) system.

Enforcement

Enforcement can be approached from two angles — either for financially incentivized projects or for those triggered by land use and process incentives.

The financial incentive is often needed to encourage and make such developments viable in the first place, making a financial penalty for non-compliance challenging to employ. For that reason, the best practice is to be proactive on the front end, providing sufficient resources and check-ins during the design development process to ensure compliance along the way.

For projects triggered by land use and process incentives, the city could enact a fine for violation, which has been done in other American cities with some as high as $500 per day for non-compliance. In either case, compliance with the sustainable building policy should be included in the development agreement and loan documents.

Evaluation

Cities should evaluate a policy's impact and adjust over time in order to meet stated goals. A best practice is to build a framework for these components within the policy itself by requiring an annual progress and impact report and setting a reassessment timeline (e.g., every 3-5 years) for overlay criteria and the approved third-party rating systems.

Codify the Policy

After the city council or board adopts the sustainability building policy, it is important to codify the policy within or near zoning- and planning-related chapters in city code because a sustainable building policy concerns land development.

IMPLEMENTATION GUIDE

Before approval, it is important to have a plan to address questions of "how" — namely, how to operationalize the policy. Policy adoption alone will not ensure a sustainable building policy will be successful. Additional steps are needed to create structure, ownership, and awareness of the policy.

Identify Leaders and Collaborators

Policies are often managed by departments that are responsible for education, awareness, and enforcement. In some cases, these responsibilities may fall across departments, so it is important early on to identify the department and individual who will take primary ownership for the policy. Below is a list of key stakeholders to involve:

Sustainability Staff

As topic specialists, sustainability staff should either lead or play a significant part in policy development and assist in policy implementation. Such staff can advocate for the policy internally and educate external stakeholders. In addition, any initial meetings with

a project's development team should include sustainability staff or other designated, qualified individuals who can speak to the technical nature of sustainability requirements.

Planning Department

City planning departments should be involved in the management of the sustainable building policy. City planners are responsible for reviewing project applications, engaging with developers, and ultimately drafting the developer's agreement, which is the document holding a project developer accountable for following policies and codes.

External Collaborators

External partners can provide technical assistance to project teams to meet policy rating systems. These generally fall into two categories:

- Specific: A partner that develops and manages an individual rating system is best equipped to answer questions regarding pathways for compliance for their rating system (e.g., USGBC for LEED).
- Broad: A partner that can answer questions across multiple rating systems.

Community Highlight: St. Louis Park, MN

Because the City's Community Development Department oversees project and land use applications as well as financial incentives for development, it is a natural fit for the sustainable building policy to be managed by that department. Sustainability staff, who are in a different department, remain engaged by attending project meetings with developers to educate them about the City's climate goals and aspects of the policy. The City also keeps an architecture and engineering firm on retainer for more detailed review beyond sustainability staff's abilities and to help developers meet the goals of the policy.

Increase Awareness of the Policy

A key question to ask is: how do developers, architects, and contractors know the policy exists?

If the policy is new, or if major changes have been made to an existing policy, cities should take proactive steps to inform their development community about how this policy will impact future projects. At minimum, cities should post the policy clearly on the city's website for easy access. Additional engagement would build support and acceptance of the policy. We recommend cities offer trainings, networking events, and building tours, as well as engage building associations to spread the word about the policies. Cities could also partner on outreach initiatives to increase reach and minimize cost.

Community Highlight: Rochester, MN

The City of Rochester hosts green building tours to showcase successful implementation of their policy in new development. Developers and architects can tour new buildings, ask questions, and learn how their peers are following Rochester's sustainable building policy.

Identify Projects Subject to the Policy

Although a policy itself specifies minimum requirements for subject developments, the city must create a process to easily identify incoming projects that meet those requirements. This is accomplished by leveraging existing development review processes. Planners also often use checklists and review guides to ensure projects meet required development policies and codes.

For that reason, we recommend cities use this process to integrate a review for the sustainable building policy. Cities should make sure someone with sustainability expertise, either sustainability staff or other designated reviewers, attend development review meetings.

Educate Project Teams

Once the city has identified an eligible project, the policy should be reviewed with the project's development team to ensure they understand all the components of the policy. This is a great opportunity for development teams to ask questions and for city staff to champion their policy.

> **Community Highlight: Saint Paul, MN**
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> The City of Saint Paul uses funding and size minimums to determine the projects subject to their sustainable building policy. After public project funding is requested and before it is approved, the staff member responsible for managing the policy is notified of the project. Staff send a letter to the project team detailing compliance requirements for the project, and soon after they hold a meeting involving the project team to review these requirements. Sustainability staff leverage this opportunity to walk through the policy step by step to make sure there are no surprises for the project team.

This meeting should be scheduled after a project application or funding application is received to ensure policy criteria can be incorporated as early as possible in the design process. Having the right people at the meeting will ensure that the policy expectations are clearly communicated, and any questions are addressed. On the city's side, this meeting should include those involved in managing the policy, such as sustainability and planning staff. If the city is working with an external collaborator to help with technical assistance, including them in this meeting would be advantageous. From the project team, the architect and owner's representative should be invited so that the team responsible for designing and funding the project understand the expectations.

Ensure Compliance

A best practice for compliance is for cities to connect project teams with external collaborators who are technical experts in both the development process and sustainability requirements. Cities then track compliance with the list of requirements. Because most projects that have been subject to sustainable building policies in Minnesota have been commercial, mixed use, or large multifamily, city staff have relied on the B3 Tracking Tool to monitor compliance for most recommended overlay criteria and then have separate manual tracking mechanisms to track any remaining criteria.

Another best practice is to leverage other existing processes for front end-confirmation of sustainable design, such as Xcel Energy's Energy Design Assistance program and other similar utility programs that incentivize energy modeling to meet building performance criteria.

Enforce the Policy

Enforcement comes into play once a project receives the necessary approvals to start construction. In most cases, following the previous steps will ensure that a project adheres to the policy; however, if the project does not meet minimum standards, enforcement may be necessary. Formal enforcement should be codified in the policy, so developers understand the implications of not complying. Informally, city staff can communicate with project teams about the negative impact to their relationship and concerns over future projects following city policies.

> **Community Highlight: Rochester, MN**
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> The City of Rochester structures their Tax Increment Financing (TIF) agreements as pay-as-you-go disbursements, giving the city the opportunity to withhold future disbursements if a project does not adhere to certain policies or codes. The city has used this approach for projects in the Destination Medical Center and throughout the municipality.

Evaluate Impact

Evaluating the policy's impact helps city staff and city decision-makers understand if the policy achieved the intended goals. Project reports should detail the size, cost, and anticipated savings compared to actual performance. A summary of these along with the collective environmental benefits (e.g., gallons of water and greenhouse gas emissions saved compared to code) should be shared with city council, staff, and the public. In addition, annual or biennial reviews with project teams, city staff, and external collaborators give valuable input into the effectiveness of the policy. Cities should talk to project teams about what worked and what could be improved about the sustainable building policy's implementation process. They should also talk to external collaborators and sustainability experts about the latest trends and best practices for sustainable buildings. Having both quantitative and qualitative data on the policy's success will be useful during future policy updates to strengthen its impact.

FUTURE CONSIDERATIONS

Going forward, these policies should evolve as new sustainability standards become available and as city goals around reducing structural racism and ensuring equity become clearer and more focused. As cities find alignment on these issues, they should continue to exchange best practices and evolve together. We recommend cities check in on at least a biannual if not quarterly basis. This could be led by cities themselves or by an external coordinator.

Areas that may warrant further exploration include:

- **Compliance tracking tool.** Cities currently lack a holistic method for tracking compliance for all property types and may benefit from the development of one.

- **Additional compliance strategies.** Another possible route to ensure compliance is by leveraging permitting and inspections processes. However, because construction code is prescriptive and most sustainability criteria is performance-based, there has been no attempt in Minnesota thus far to take either of these two routes:
  - o **During permit approval.** Because cities approve permits that give the green light for construction, they could explore issuing permits only once design models adequately indicate that sustainability requirements will be met. Incorporating permit approvals that are based on modeled designs of performance would necessitate thorough consideration of expertise and permitting staff needs.
  - o **During inspections.** Building inspectors could take a bigger role in ensuring sustainability criteria are incorporated during construction. Similar to design review for permits, inspectors evaluate a building based on prescriptive code. For that reason, inspector scope would need to expand to include evaluation against a performance-based model design.
- **A one-stop-shop for expertise on sustainable building policies.** An external collaborator would not only consult on multiple rating systems, but also serve as a single point of communication for technical questions and compliance monitoring for project teams and cities, respectively. This type of group has not yet been established to serve Minnesota cities. However, such a partner with broad expertise, design review experience, and implementation support ability could serve multiple cities while reducing sustainability staff needs.

Although sustainable building policies have been around more than a decade in Minnesota, there remain great opportunities for more cities to leverage such policy tools and for better standardization among cities to ease implementation. As cities actively invest in new developments or receive developer requests outside existing zoning rules, they can use these policies to achieve sustainability goals. In the end, the built environment has strong impacts on environmental health and livability, and sustainable building policies are an important tool to build the physical environment that cities want and need.