

COMMUNITY ENERGY MANAGEMENT - BEST PRACTICES

Community Energy Management Best Practices

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Program Overview

Local governments across Michigan struggle with economic constraints and seek tools to secure their financial health and identify sources of stable on-going funding for their critical services. Energy costs for the operation of municipal buildings and infrastructure are a rising expense for communities. Fortunately, energy costs also represent one of the easiest places where cost savings can be realized. However, local governments frequently lack the technical expertise and staff capacity to pursue those savings.

Even when staff members are interested in pursuing energy savings, determining where the necessary information is and how to prioritize improvements is an ongoing challenge. This is where the services of a **Community Energy Manager (CEM)** familiar with municipal operations and political processes, financing options, and moving projects through local government processes, can provide valuable services and produce measurable savings.

This checklist is a self-evaluation tool for communities seeking to take control of their local energy use and generation through the development of a Community Energy Management program and provides a framework the Community Energy Manager can use for discussing energy issues with the community and adopt formal energy goals and policies.

The required **Best Practices** include flexible approaches and ideas for extra-mile efforts that may be appropriate in some communities. The accompanying **Toolkit** provides additional narrative on the best practices, to assist communities in fulfilling the criteria. Additionally, a sample **Position Description** for a *Community Energy Manager* (on-staff or coordinated through a consultant) and a step-by-step **Strategy** for achieving the best practices are also provided.

The Best Practices are based on six pillars, and align with the **Redevelopment Ready Communities®** program. The CEM Best Practices address energy efficiency, renewable energy, and energy-related developments, and are supplemented by the solar energy best practices developed concurrently under a separate grant. While there is an implied chronological sequence to the best practices, what is most critical is that the community embraces their collective responsibility and have a plan with goals to guide and regularly monitor the effectiveness of their efforts. Early planning, at the beginning of the community discussion, should include following the criteria set out in these best practices and broadening the community's vision of areas where they can impact local energy.

Community Energy Management is a new approach to local planning that prioritizes energy efficiency and renewable energy along with the businesses that support them. Community Energy Management addresses all energy use within a municipality (city, village, township, county) and strives to meet their local economic, environmental, and social goals.

Energy sectors and opportunities for efficiency in your community include: buildings (residential, commercial), industry, municipal infrastructure (street & traffic lights, services, water management, wastewater management, solid waste management), transportation (commuter, service, delivery), and utilities (resource extraction, resource delivery, power generation, transmission). Renewable energy resources include: solar, wind, biomass, and geothermal.

In addition to meeting local needs, Community Energy Management aligns directly with policies, regulations, and goals in Michigan and at the federal level:

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Governor Snyder's plan for Michigan's bright energy future with new affordable, reliable and adaptable energy that protects Michigan's environment for generations to come. His goal is to "replace 30-40% of our energy needs through the elimination of wasted energy and shift to cleaner sources in 10 years, by 2025." (http://www.michigan.gov/snyder/0,,7-277-57577_57657-349790--,00.html)

The U.S. Department of Energy's Strategic Plan includes "catalyzing the timely, material and efficient transformation of the nation's energy system and securing U.S. leadership in clean energy technologies." (<http://energy.gov/articles/secretary-chu-unveils-2011-strategic-plan>)

- DOE's Office of Energy Efficiency and Renewable Energy (EERE) leads efforts to develop and deliver market-driven solutions for energy-saving homes, buildings, and manufacturing; sustainable transportation; and renewable electricity generation. (<http://energy.gov/eere/about-us/mission>)
- EERE supports states and cities with programs and initiatives, technical assistance and tools, information, and education. (<http://energy.gov/eere/services/states-and-local-communities>)

U.S. Environmental Protection Agency Clean Power Plan
(<http://www2.epa.gov/cleanpowerplan>)

- Clean Power Plan for Existing Power Plants (<http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants#federal-plan>)
- Clean Power Plan: At A Glance Michigan factsheet (<http://www.epa.gov/airquality/cpptoolbox/michigan.pdf>)

Local communities are an integral part of meeting Michigan and federal goals for our new clean energy future. Opportunities for energy efficiency and renewable energy are abundant in every community.

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Best Practice One: Community Plans and Public Outreach

1.1 Energy Plan

Policy guidance for community energy management may occur through a variety of plans, such as a special section in the Master Plan or a separately adopted resiliency or energy plan. This policy supports the advancement of local clean energy through renewable energy generation and energy efficiency. It also provides the basis for related land use regulation, capital investment, program development and economic strategies. The planning effort and resulting guiding documents can help maximize energy savings in energy efficiency and renewable energy projects and ensure that the work done fits in with the community's values and energy goals.

Evaluation Criteria	Expectations
<p><i>1.1.1 The governing body has adopted or updated energy policy guidance as a part of their Master Plan in the past 5 years.</i></p>	<ul style="list-style-type: none"> • 1.1.1.1 The energy policy guidance clearly expresses support for local clean energy using common planning document language. • 1.1.1.2 The master plan includes specific standards and requirements related to energy efficiency upgrades in municipal buildings and renewable energy installations on municipally owned property and/or • 1.1.1.3 A separate energy management plan has been adopted that is founded on baseline energy consumption analysis performed on municipally owned property, capital improvement plans, current governmental initiatives related to energy efficiency or renewable energy generation, a land use master plan, any existing sustainability planning or energy management plans, and relevant building codes. • 1.1.1.4 The energy policy guidance is accessible online.
<p><i>1.1.2 The Master Plan identifies strategies for increasing clean energy in the community, including municipal energy management.</i></p>	<ul style="list-style-type: none"> • 1.1.2.1 The energy strategy/policy identifies priority clean energy actions, projects and programs, in the community. • 1.1.2.2 The energy strategy/policy contains goals with implementation steps and tools for advancing clean energy in the community • 1.1.2.3 The energy strategy/policy includes a targets with a timeline identifying responsible parties and benchmarks. • 1.1.2.4 Progress on the energy strategy/policy implementation, barriers, and accomplishments toward the goals and

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Evaluation Criteria	Expectations
	<p>targets is annually reported to the governing body and to the community.</p> <ul style="list-style-type: none"> • 1.1.2.5 For municipal buildings/facilities, the master plan (or energy management plan) includes a summary of current energy consumption through Energy Star Portfolio Manager, identifies sequenced projects that are grouped by short-term, medium-term, and long-term strategies for increasing energy efficiency or renewable energy generation, identifies underperforming buildings that are targeted for ASHRAE level 2 audits or targeted energy studies, and describes mechanisms for institutionalizing energy efficiency and renewable energy decision making.
<p><i>1.1.3 The governing body has adopted a capital improvement plan (CIP) that includes support for the clean energy strategies identified in the Master Plan.</i></p>	<ul style="list-style-type: none"> • 1.1.3.1 The CIP includes investments that incorporate prioritized clean energy projects, including specific opportunities for energy efficiency upgrades or preparing facilities for renewable energy installations. • 1.1.3.2 The CIP includes narrative descriptions of projects, recommended timing, and possible funding mechanisms. • 1.1.3.3 The CIP coordinates various clean energy projects to minimize costs and impacts while maximizing future savings and benefits, where feasible.
<p><i>1.1.4 The energy strategy is integrated into other components of the Master Plan, such as a sustainability or climate action plan, downtown development plan, corridor plans, and/or other sub-area plans, if applicable.</i></p>	<ul style="list-style-type: none"> • 1.1.4.1 The applicable plans outline specific opportunities to reduce energy consumption and/or generate renewable energy that are consistent with their respective goals.

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Best Practice One: Community Plans and Public Outreach

1.2 Public Participation

Public participation is critical in the initial development of the energy policy guidance and ongoing as energy programs are developed. The energy policy needs to reflect the culture, assets and aspirations of the residents and local businesses. Community energy management overlaps with and is affected by neighboring jurisdictions, regional energy industry businesses, schools, utility, area non-profits, county and state in addition to local residents, businesses, and developers.

Evaluation Criteria	Expectations
<p>1.2.1 <i>The community has a public participation plan that engages a diverse set of stakeholders.</i></p>	<p>1.2.1.1 The energy policy guidance identifies key stakeholders, including those not normally at the visioning table, such as:</p> <ul style="list-style-type: none"> . municipal staff . local officials . local residents . local businesses . regional energy industry businesses . schools . municipal neighbors . county . state . regional economic council . utility . non-profits
<p>1.2.2 <i>The community demonstrates that public participation efforts for local energy go beyond the basic methods.</i></p>	<ul style="list-style-type: none"> • 1.2.2.1 The energy policy guidance includes sharing information and receiving ongoing input on local energy management. • 1.2.2.2 The community proactively engages the public in learning about local energy policy, regulations and programs. These proactive practices may include individual mailings, one-on-one interviews, surveys, community workshops, social networking, and crowd-sourcing. • 1.2.2.3 Community tracks success of various methods of public engagement about local energy.
<p>1.2.3 <i>The community shares outcomes of public participation processes.</i></p>	<ul style="list-style-type: none"> • 1.2.3.1 Community participation results regarding local energy policy are communicated in a consistent and transparent manner.

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Best Practice Two: Zoning Regulations

2.1 Zoning Regulations

The zoning ordinance needs to reflect the energy policy in the Master Plan. Zoning impacts building energy efficiency through density regulations and flexible compliance options. Transportation efficiency impacted through land use adjacencies, parking regulations, and accommodation of alternative and non-motorized transportation. Zoning also impacts the community's potential for local clean energy generation through allowance of renewable energy installations while protecting neighbors' access to renewable energy generation.

Evaluation Criteria	Expectations
<p><i>2.1.1 The governing body has updated zoning ordinance language specific to local clean energy that aligns with the goals of the energy policy guidance in the Master Plan.</i></p>	<ul style="list-style-type: none"> • 2.1.1.1 The community has reviewed the energy policy guidance in the Master Plan to determine if changes to the zoning map or ordinance text are necessary to implement the local clean energy vision and goals. • 2.1.1.2 The zoning ordinance addresses zoning for energy efficiency and renewable energy installations including wind, solar, and others in both commercial and residential zoning.
<p><i>2.1.2 The local clean energy zoning regulations are user-friendly and accessible online.</i></p>	<ul style="list-style-type: none"> • 2.1.2.1 The zoning ordinance portrays clear definitions and requirements for local clean energy using ordinance language common across Michigan jurisdictions. • 2.1.2.2 The zoning regulations that support local clean energy are easily available online in electronic format at no cost.
<p><i>2.1.3 The zoning ordinance includes standards that do not unnecessarily restrict energy efficiency and renewable energy improvements in the community.</i></p>	<ul style="list-style-type: none"> • 2.1.3.1 The community understands the benefits of local clean energy and has included related zoning standards that increase energy efficiency and encourage renewable energy where appropriate. • 2.1.3.2 The zoning ordinance supports local clean energy and the community has confirmed that renewable energy installations are not being unnecessarily prohibited or constrained.
<p><i>2.1.4 The zoning ordinance includes flexible zoning tools to encourage local clean energy.</i></p>	<ul style="list-style-type: none"> • 2.1.4.1 The community has explored creative zoning approaches for encouraging high performance buildings that go beyond the state building code requirements. • 2.1.4.2 Districts or sites have been identified within the community that permit uses (businesses) that serve the clean energy sector and include larger renewable energy installations.

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Evaluation Criteria	Expectations
<p>2.1.5 <i>The zoning ordinance allows mixed use and housing density.</i></p>	<ul style="list-style-type: none"> • 2.1.5.1 The zoning ordinance accommodates affordable housing options for local employees within walking distance to transit and non-motorized routes.
<p>2.1.6 <i>The zoning ordinance includes standards to increase access to alternative and non-motorized transportation.</i></p>	<ul style="list-style-type: none"> • 2.1.6.1 The community understands the clean energy benefits of alternative and non-motorized transportation and zoning standards reflect this.
<p>2.1.7 <i>The zoning ordinance includes flexible parking standards.</i></p>	<ul style="list-style-type: none"> • 2.1.7.1 The ordinance considers: <ul style="list-style-type: none"> . parking maximums . parking exempt districts on transit corridors (no parking minimum) . parking only on side or rear of buildings . electric vehicle charging stations . covered bicycle parking close to building entrances . payment or alternatives in lieu of parking . prioritized parking for shared, electric or carpool
<p>2.1.8 <i>The zoning ordinance includes standards for green infrastructure.</i></p>	<ul style="list-style-type: none"> • 2.1.8.1 The ordinance considers: <ul style="list-style-type: none"> . green roofs . passive solar and passive shading . geothermal districts . solar gardens/community solar

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Best Practice Three: Project Review Process

3.1 Project Review Policy and Procedures

Best practice 3.1 examines the community’s process and procedures for reviewing all new energy developments and capital improvements to ensure that they are in-line with the energy management plan. It is essential that new developments and capital improvements are consistent with the energy management plan and that the review process is streamlined and straightforward to keep projects moving. Making the review process for energy projects clear to the public will help all parties involved complete an efficient and successful project.

Evaluation Criteria	Expectations
<p><i>3.1.1 The zoning ordinance articulates an easy permitting, review, and approval process.</i></p>	<ul style="list-style-type: none"> • 3.1.1.1 The community has streamlined permitting process for clean energy projects by: <ul style="list-style-type: none"> . providing a process checklist . expediting residential and small commercial permit applications . allowing online permitting submission and notification . reducing appointment time windows for inspections . coordinating with neighboring jurisdictions . showcasing examples of successful projects . considering waiving or reducing permit fees to help encourage energy efficient and renewable energy projects
<p><i>3.1.2 The community has a qualified intake professional knowledgeable about energy efficiency and renewable energy installations.</i></p>	<ul style="list-style-type: none"> • 3.1.2.1 The community has identified a point-person and trains them to assist property owners and developers with understanding the community’s clean energy regulations. • 3.1.2.2 Staff understand the importance of their role in articulating the community’s clean energy goals and enabling energy efficient and renewable energy developments.
<p><i>3.1.3 For municipal projects, the community defines and offers energy management review meetings for all staff undertaking capital improvement projects.</i></p>	<ul style="list-style-type: none"> • 3.1.3.1 The Community Energy Manager commits to meeting with all staff members undertaking capital improvements to ensure that capital improvement projects are in line with the community energy management plan and are maximizing the potential for energy efficiency and/or renewable energy.

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Evaluation Criteria	Expectations
<p>3.1.4 <i>The appropriate departments engage in energy project reviews and coordinate with applicable external entities in reviewing projects as needed.</i></p>	<ul style="list-style-type: none"> • 3.1.4.1 Departments are engaged in helping to scope energy efficiency and/or renewable energy projects including but not limited to: economic development, finance, facilities, and a government sanctioned green team that may involve citizens and/or employees. • 3.1.4.2 The local utility is engaged early-on for input on siting considerations, interconnection requirements (where applicable), partnership opportunities, and/or eligibility for assistance programs.
<p>3.1.4 <i>The community has methods to track project development.</i></p>	<ul style="list-style-type: none"> • 3.1.4.1 All energy efficiency and renewable energy projects are tracked in a central location by the community energy manager. Key metrics tracked should include: upfront costs, annual kWh savings, annual dollar savings, and dollars set aside in a reserve fund for future projects. • 3.1.4.2 The community energy manager will update building utility consumption on a monthly basis to identify any underperforming buildings quickly.
<p>3.1.5 <i>The community promptly acts on energy efficiency and renewable energy opportunities.</i></p>	<ul style="list-style-type: none"> • 3.1.5.1 The Community Energy Manager is committed to moving quickly on timely energy efficiency and renewable energy opportunities as they become available such as utility rebate programs, state-led initiatives, or programs led by the non-profit community.
<p>3.1.6 <i>The community builds energy efficiency and renewable energy generation readiness into building codes.</i></p>	<ul style="list-style-type: none"> • 3.1.6.1 The community reviews existing building codes and enforcement policies to find opportunities to enhance building codes in a way that maximizes energy efficiency and renewable energy generation readiness in municipal and community buildings without undue cost burdens on owners.

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Best Practice Three: Project Review Process

3.2 Guide to Energy Efficiency and Renewable Energy Projects

Best practice 3.2 covers ways the municipality can secure approvals for energy efficiency and renewable energy projects that are consistent with the energy management plan. Easy access to information that is easy to understand helps interested property owners, developers, and neighbors understand local expectations and better prepare for the entire process.

Evaluation Criteria	Expectations
<p><i>3.2.1 The community maintains an online guide that explains policies, procedures and steps to completing a successful local clean energy development.</i></p>	<ul style="list-style-type: none">• 3.2.1.1 The online guide includes:<ul style="list-style-type: none">. explanation of local clean energy policy. links to clean energy policy documents in the Master Plan. project permitting checklist. key performance indicators that a project must meet to be consistent with the energy management plan. tracking and evaluation tools for the key performance indicators. approval timelines for reviewing bodies. links to clean energy resources. case studies and success stories. explanation of tools available to local property owners. contact information for Energy Manager and any other relevant municipal staff persons

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Best Practice Four: Recruitment and Education

4.1 Recruitment and Orientation

Best practice 4.1 evaluates how a community makes newly appointed or elected officials and board members aware of the community energy management plan. Communities are encouraged to seek both diversity on boards and the skill sets necessary to drive forward implementation of the energy management plan.

Evaluation Criteria	Expectations
<i>4.1.1 The community sets expectations for board and commission positions</i>	<ul style="list-style-type: none">4.1.1.1 Board and commission applications outline expectations and desired skill sets for open seats.
<i>4.1.2 The community provides orientation information about local clean energy for elected officials and board members.</i>	<ul style="list-style-type: none">4.1.2.1 The orientation packet includes the energy guidance policy in the Master Plan, zoning regulations, the permitting process and general guidance about energy efficiency and renewable energy.

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Best Practice Four: Recruitment and Education

4.2 Education and Training

Best practice 4.2 covers how to encourage ongoing education and training in a community for elected officials, board members, and staff. All members of the community impact municipal energy consumption and behavior change can be an important tool in a community’s energy reduction efforts. Additionally having informed staff and officials will lead to the identification of new opportunities consistent with the energy management plan and provide critical support to project implementation.

Evaluation Criteria	Expectations
<p><i>4.2.1 The community has a dedicated source of funding for training.</i></p>	<ul style="list-style-type: none"> The community has a training budget allocated for elected and appointed officials and staff.
<p><i>4.2.2 The community identifies the training needs of staff, formalizes expectations and tracks attendance.</i></p>	<ul style="list-style-type: none"> 4.2.2.1 The community identifies trainings that assist in accomplishing their stated local clean energy goals and objectives, such as working with local clean energy industry representatives and training institutions / colleges along with collaborating with neighboring jurisdictions.
<p><i>4.2.3 The community encourages the governing body, boards, commissions and staff to attend trainings.</i></p>	<ul style="list-style-type: none"> 4.2.3.1 The Community Energy Manager consistently notifies elected and appointed officials and staff of training and educational opportunities and works to secure buy-in from the municipal leadership.
<p><i>4.2.4 The community shares information between the governing body, boards, commissions, and staff.</i></p>	<ul style="list-style-type: none"> 4.2.4.1 Key information is shared with those not in attendance at training and education events. 4.2.4.2 Collaborative work sessions are held around large energy efficiency and renewable energy initiatives. 4.2.4.3 The community appoints a staff member to serve as a liaison on relevant appointed bodies such as an energy or environmentally focused city commission.

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Best Practice Five: Clean Energy Communities

5.1 Clean Energy Sites

All sites within a community have clean energy potential through energy efficiency and renewable energy installations, including existing facilities. Site evaluations incorporate energy efficiency of buildings and facilities, transportation energy efficiency, and renewable energy generation. Prioritizing sites is an important exercise to focus the community's limited resources on projects that may have the highest impact or with the greatest opportunity for increasing public awareness. Best practice 5.1 also addresses how sites that are targeted as redevelopment ready sites should be reviewed for renewable energy generation potential and opportunities for taking advantage of existing natural resources at the site.

Evaluation Criteria	Expectations
<p>5.1.1 <i>The community identifies and prioritizes clean energy sites for program support.</i></p>	<ul style="list-style-type: none"> • 5.1.1.1 The community maintains a map delineating the clean energy potential of all sites along with completed clean energy installations. • 5.1.1.2 The community has prioritized sites based on selected criteria.
<p>5.1.2 <i>The community gathers preliminary background information for prioritized sites.</i></p>	<ul style="list-style-type: none"> • 5.1.2.1 Information to consider: <ul style="list-style-type: none"> . Visibility . Transportation options . Building energy analysis report, if available . Building area . Number of employees . Annual energy use (EUI) . Building use and age . Lighting and HVAC needs . Energy generation potential for wind, solar, and geothermal installations . Natural features such as on-site trees that can reduce HVAC loads . Slopes that may be usable as partial earth sheltering . Opportunities for on-site stormwater management . The ideal building orientation for winter solar heat gain and daylighting.
<p>5.1.3. <i>A "Property Information Package" for the prioritized redevelopment site(s) is assembled.</i></p>	<ul style="list-style-type: none"> • 5.1.3.1 The "Property Information Package" includes or identifies: <ul style="list-style-type: none"> . The feasibility of energy efficiency upgrades at the site (lighting, HVAC, building envelope, etc.). . The feasibility of wind, solar PV, solar thermal, or geothermal installations on the site . The identification of any existing trees on site that should be maintained to reduce cooling loads in summer and to provide wind

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Evaluation Criteria	Expectations
	<p>breaks in the winter</p> <ul style="list-style-type: none"> . The identification of any grading that a potential development can be built into to provide enhanced thermal performance of the building envelope . Opportunities for on-site stormwater management to reduce loads at the municipal wastewater treatment facility . The ideal building orientation to maximize solar heat gain and daylighting.
<p><i>5.1.4 The community has developed a vision for the prioritized clean energy sites.</i></p>	<ul style="list-style-type: none"> • 5.1.4.1 The energy plan includes a vision for desired clean energy development outcomes and specific clean energy development criteria. • 5.1.4.2 Community champions for the clean energy sites are identified. • 5.1.4.3 If clean energy sites are highly controversial, the community has a plan for additional public engagement.
<p><i>5.1.5 The community identifies available resources and incentives for prioritized clean energy sites.</i></p>	<ul style="list-style-type: none"> • 5.1.5.1 The community determines the level of support it will give to a project, based on the project meeting the community's vision and desired clean energy outcomes. • 5.1.5.2 The community gathers financial support from other partners for projects including: <ul style="list-style-type: none"> . utilities . state agencies . regional businesses . employers

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Best Practice Five: Clean Energy Communities

5.2 Community Energy Management

Community energy management is a new approach to community planning that prioritizes energy efficiency and renewable energy across the community, along with the businesses that support them. Energy is conserved through greater awareness of our use, replacement of inefficient technology, and locating power generation close to where it's needed. Renewable energy protects the environment and our health at a reduced total cost to society.

The energy manager is the point person for community energy management. Primary responsibilities include developing an annual energy management action plan with a budget, researching funding options, reporting on progress and coordinating programs. Outside support for this work may come from the Michigan Green Communities network, verification programs, neighboring communities, and clean energy conferences.

Evaluation Criteria	Expectations
<i>5.2.1 The community has an energy management action plan.</i>	<ul style="list-style-type: none">• 5.2.1.1 There is a municipal green team integrating clean energy solutions into all government operations.• 5.2.1.2 The elected officials have an appointed technical advisory committee with the ongoing responsibility of implementing the Energy Plan.• 5.2.1.3 The community has adopted a Complete Streets policy.• 5.2.1.4 The community understands the Michigan Building Code, Michigan Residential Code, and Michigan Uniform Energy Code and how communities can incentivize higher energy performance in buildings.• 5.2.1.5 The community sets targets that can be regularly tracked to help monitor progress toward the energy policy goals in the Master Plan.
<i>5.2.2 The community has a permanent community energy manager.</i>	<ul style="list-style-type: none">• 5.2.2.1 There is a job description for the Energy Manager, and the work is fulfilled by staff and consultants, as needed.• 5.2.2.2 The staff responsibility for energy management is clearly defined.• 5.2.2.3 The responsibilities of energy consultant(s) are clearly defined for energy management and as programs are initiated.

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Evaluation Criteria	Expectations
<p>5.2.3 <i>The community has committed seed funding toward implementing actions in the Energy Plan and is actively developing sustainable funding.</i></p>	<ul style="list-style-type: none"> • 5.2.3.1 Seed funding for implementing the Energy Plan has been committed until sustainable funding is put in place. • 5.2.3.2 The Energy Manager position is funded. • 5.2.3.3 There is a budget for energy management that is set to achieve the short-term targets toward the long term goals. • 5.2.3.4 The community is researching and evaluating options for sustainable funding. • 5.2.3.5 The community is leveraging financing tools (i.e. PACE, MI Saves, utility incentives, revolving loan fund, etc) to help increase energy savings for community members.
<p>5.2.4 <i>The community is actively tracking, evaluating and reporting progress toward the targets identified in the energy management action plan.</i></p>	<ul style="list-style-type: none"> • 5.2.4.1 The community has calculated a baseline and evaluated existing energy use. • 5.2.4.2 Energy monitoring has been setup to measure and track progress on clean energy actions. • 5.2.4.3 A template has been created for reporting annual clean energy progress.
<p>5.2.5 <i>The community is coordinating programs to increase progress on clean energy targets and goals set in the Master Plan.</i></p>	<ul style="list-style-type: none"> • 5.2.5.1 The community is coordinating programs to increase energy efficiency and renewable energy use, and utilizing available tools. • 5.2.5.2 community education and outreach • 5.2.5.3 creative financing (PACE, MI Saves, utility incentives, revolving loan fund, community solar, crowdfunding, etc.)
<p>5.2.6 <i>The community is actively participating in outside programs that provide support and verify community energy progress.</i></p>	<ul style="list-style-type: none"> • 5.2.6.1 The community is a member of Michigan Green Communities and actively making progress in the Michigan Green Communities Challenge. • 5.2.6.2 The community understands the value of third-party verification programs like S.T.A.R. Communities certification, and is considering their protocol and requirements to be prepared for possible application in the future. • 5.2.6.3 The community regularly participates in regional energy manager network(s), such as Michigan Green Communities, Urban Sustainability Directors network, or coordinates with neighboring jurisdictions. • 5.2.6.4 The community energy manager has

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Evaluation Criteria	Expectations
	an annual allowance in the budget for attending regional or national clean energy trainings and conferences.

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Best Practice Six: Community Prosperity

6.1 Economic Development Strategy

Understanding the economic opportunities inherent in advancing energy efficiency and renewable energy, and how this simultaneously enhances other community goals, is especially important. Clean energy business expansion and energy installations help create jobs, strengthen the community, and reduce reliance on imported power sources. The projects implemented as part of a Community Energy Management plan should also reduce long-term energy expenditures thereby freeing up capital for other initiatives and overall making the community more economically resilient.

Evaluation Criteria	Expectations
<p><i>6.1.1 The community has an approved economic development strategy that incorporates clean energy opportunities.</i></p>	<ul style="list-style-type: none"> • 6.1.1.1 The economic development strategy commits to reducing energy expenditures through energy efficiency and renewable energy projects. • 6.1.1.2 The economic development strategy calls for a contribution of 20% of energy cost savings to be contributed to a dedicated "energy fund" that can be used to finance future energy projects. • 6.1.1.3 The economic development strategy is nimble enough to account for state and federal energy policies that the community may need to comply with. • 6.1.1.4 The economic development strategy assesses local assets and challenges to expanding clean energy businesses and installations. • 6.1.1.5 The economic development strategy embraces clean energy to attract businesses, entrepreneurs, and workers in the clean energy industry. • 6.1.1.6 The economic development strategy encourages energy independence through reinvestment in local industries and capitalizing on local clean energy sources.
<p><i>6.1.2 The community annually reviews the economic impact clean energy.</i></p>	<ul style="list-style-type: none"> • 6.1.2.1 The community calculates and reports on the key performance indicators identified in the economic development strategy each year and amends the strategy as needed.

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Best Practice Six: Community Prosperity

6.2 Marketing and Promotion

Best practice 6.2 outlines how to communicate effectively the successes and benefits of the energy management plan and implemented energy efficiency and renewable energy projects. These communications are essential for residents to know about community efforts to bring down costs, benefit the environment, and make the community a livable, attractive place to live.

The rapidly growing global clean energy industry provides communities with opportunities for energy independence and business development. The community publicly states its local clean energy vision and uses its website as an important tool to communicate its commitment.

Evaluation Criteria	Expectations
<p>6.2.1 <i>The community has developed a marketing strategy to promote the benefits of the energy management plan and implemented energy efficiency and renewable energy projects.</i></p>	<ul style="list-style-type: none"> • 6.2.1.1 The marketing strategy identifies marketing opportunities and specific strategies to attract and expand clean energy-related businesses and encourage clean energy installations. • 6.2.1.2 The marketing strategy objectives strive to create or strengthen the community’s clean energy image, heighten awareness and attract and retain clean energy businesses. • 6.2.1.3 The marketing strategy includes specific approaches to market the community’s prioritized clean energy sites. • 6.2.1.4 The marketing strategy may include: <ul style="list-style-type: none"> . Ribbon cutting ceremonies with elected officials. . Press releases with local news media . An energy & sustainability section added to the community’s website and/or newsletter . Posts on social media . Real-time energy generation monitors in municipal buildings or showcased on the community’s website.
<p>6.2.2 <i>The community has provided easy access to information through an updated, user-friendly clean energy-specific webpage on the municipal website.</i></p>	<ul style="list-style-type: none"> • 6.2.2.1 The local clean energy webpage on the community’s website contains or links to the following information: <ul style="list-style-type: none"> . local clean energy goal and targets . zoning regulations relating to clean energy . description of the approval process for clean energy projects . supportive resources

COMMUNITY ENERGY MANAGEMENT - BEST PRACTICES

Glossary

- **Community Energy Management Technical Service Providers** – Environmental non-profits specializing in community energy management. Non-profits that may be contacted for energy management include the **Michigan Energy Options**, **Southeast Michigan Regional Energy Office**, **EcoWorks**, and **SEEDS**.
- **Energy Star Portfolio Manager**- An online tool from EPA in which the user can input information about a building's energy use, square footage, percent occupancy, use, and year built and receive information about how it measures up to other similar buildings.
- **Energy Use Intensity (EUI)** – an expression of a building's energy use as a function of its size.
- **Energy Cost Intensity (ECI)** – an expression of a building's energy cost as a function of its size.
- **ASHRAE Level-2** – a type of energy audit conducted by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers. It is a mid-level intensity audit that includes a detailed analysis of the building envelope, lighting, heating, ventilation, air conditioning, domestic hot water, plug loads, and compressed air and process uses. Through this process potential problem areas are identified and a variety of energy efficiency measures are suggested.

COMMUNITY ENERGY MANAGEMENT - BEST PRACTICES

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