

EGLE Energy Services Meeting Communities Where They Are



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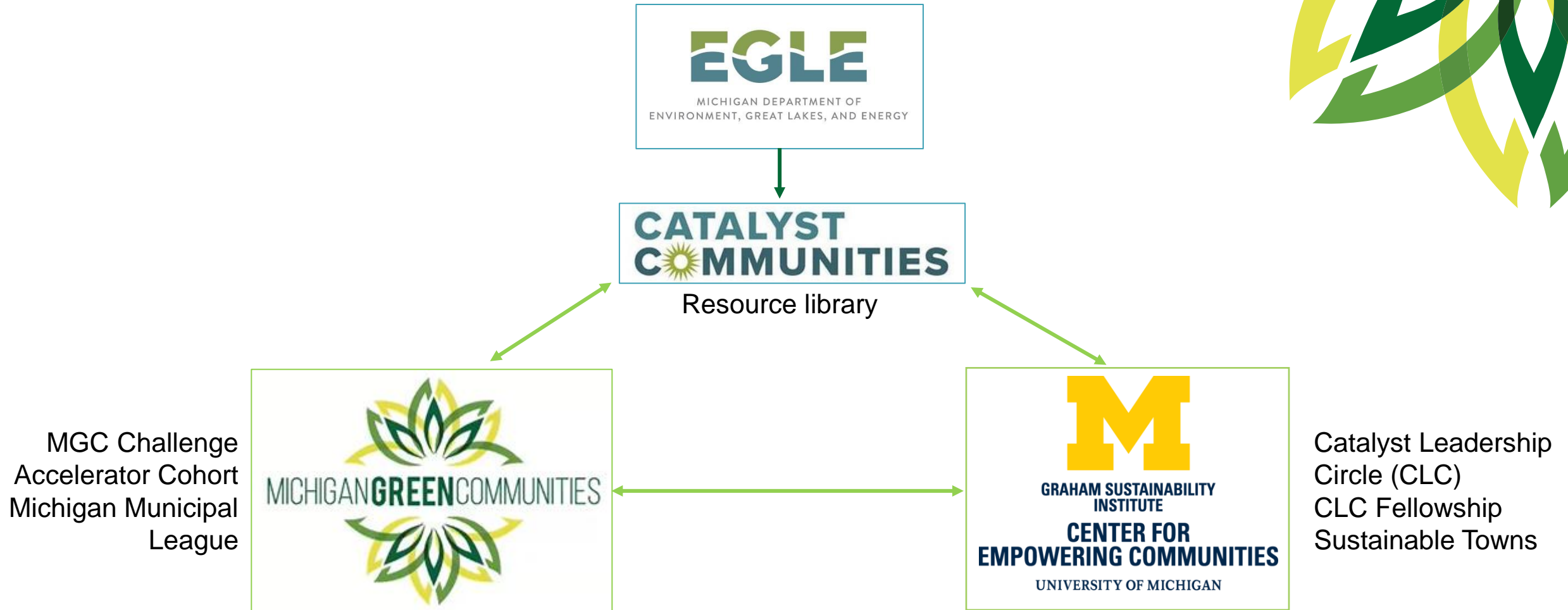
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MICHIGAN **GREEN** COMMUNITIES



A Family of Programs





What is MGC?



A sustainability benchmarking, networking, & technical assistance program for municipalities & counties



Accelerate environmentally sustainable actions by communities **to enhance Michigan's livability & economic competitiveness** in the 21st century global green economy



Benefits to Participating

- Free technical assistance
- Access to a peer network
- Easily create a roadmap of sustainability actions that work for your community

MGC Challenge Certification

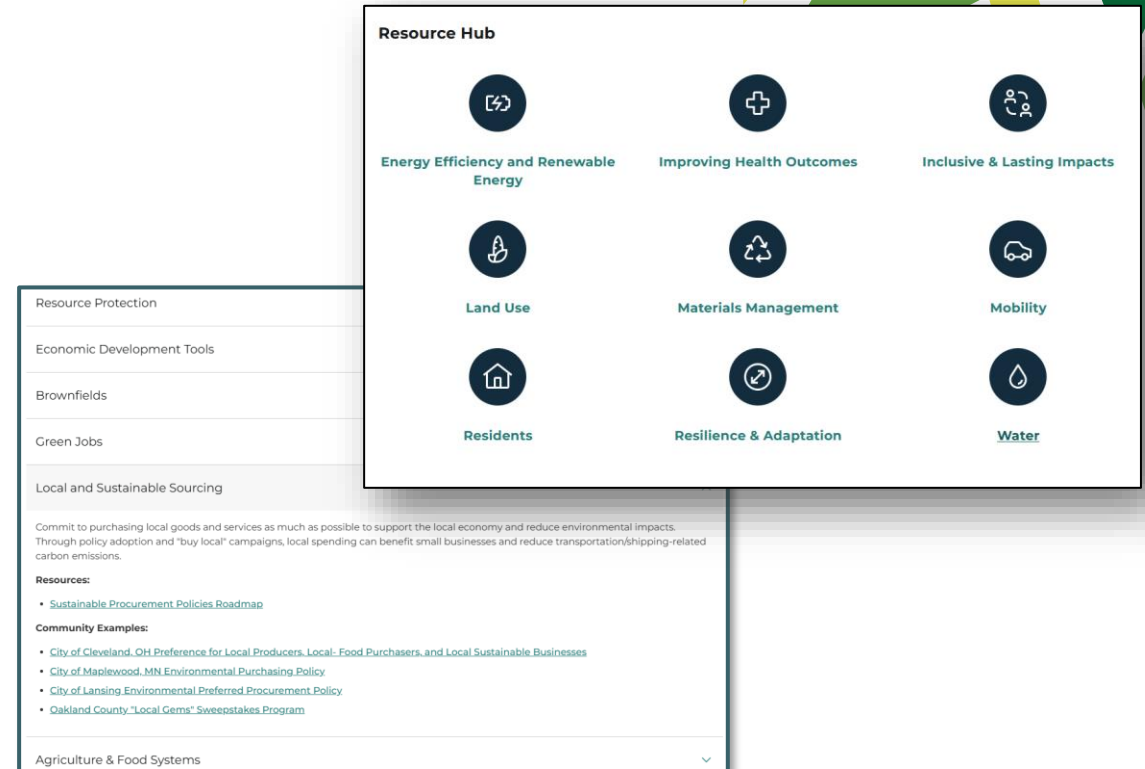


Bronze	20
Silver	60
Gold	100
Platinum	175 plus
New!	metrics



MGC Challenge Categories

1. Planning for Inclusive & Lasting Impacts
2. Climate Resilience & Adaptation
3. Energy Efficiency & Renewable Energy
4. Responsibly Managing Materials
5. Sustainable Land Use & Economic Development
6. Improving Health Outcomes
7. Protecting & Conserving Water Resources
8. Support Clean & Inclusive Mobility
9. Inspire & Mobilize Residents



Energy Efficiency & Renewable Energy

Sample Action Items:

1. Conduct energy audits on municipal/county facilities.
8. Adopt policies and/or ordinances that support renewable energy projects on private property.
10. Develop plan to upgrade/retrofit municipal/county buildings to improve energy efficiency.
21. Create and offer residents and/or businesses an opportunity to participate in a community renewable energy project (e.g. community solar park) if possible.



Template Sustainability Plan Resource Kit



Comm

CITY OF METRO CITY

METRO CITY SUSTAINABILITY INITIATIVES

Metro City is taking action to make our community more sustainable. The City recently adopted the **2023 Metro City Sustainability Plan**, which was informed by a series of community meetings and the Michigan Green Communities Challenge. The plan includes goals related to clean energy, economic development, climate adaptation, waste management, transportation, health, and much more. This document summarizes our **recent successes** and our **top five priority actions** for the next three years. Our sustainability initiatives are intended to benefit our community, our economy, and our environment. This work wouldn't be possible without Metro City residents, businesses, and organizations. To see the full sustainability plan and learn about how you can get involved with our community's sustainability initiatives, please visit [website.com](#).

RECENT SUCCESSES

- Built a demonstration rain garden at City Hall
- Upgraded 50% of city-owned streetlights to LEDs in 2022
- Received a grant to weatherize 20 homes
- Purchased two electric vehicles for our city fleet

KEY METRICS

- 5 miles of dedicated bike lanes
- 24% of municipal operations powered by renewable energy
- 30% tree canopy cover

VISION

Reduce greenhouse gas emissions 80% from 2005 levels by 2040.

PRIORITY ACTIONS FOR 2024-2026

Action	Impact
[insert priority action here]	★★★★
[insert priority action here]	★★★
[insert priority action here]	★★★
[insert priority action here]	★★
[insert priority action here]	★

Questions? Contact Sustainability Coordinator Roxanne Ritchie at roxritchie@metrocity.gov

Executive Summary

The [insert city/community name] is committed to taking action to make our community more sustainable. The [insert city/community name] recently adopted our 2023 Sustainability Plan, which was developed over the course of nine months and was informed by a series of community meetings, a community-wide survey, and the Michigan Green Communities Challenge. The plan includes goals related to clean energy, transportation, land use, economic development, climate adaptation, waste management, health, and much more.

Our sustainability initiatives are intended to benefit our community, our economy, and our environment. This work wouldn't be possible without [insert city/community name] residents, businesses, and organizations. To learn about how you can get involved with our community's sustainability initiatives, please visit [insert relevant webpage].

Recent Successes

[List any recent successes that you want to highlight – examples below]

- Built a demonstration rain garden at City Hall
- Upgraded 50% of city-owned streetlights to LEDs in 2022
- Received a grant to weatherize 20 homes
- Purchased two electric vehicles for our city fleet

High-Level Goals/Vision

[List any overarching sustainability goal(s) or a guiding vision – example below]

Reduce greenhouse gas emissions 80% from 2005 levels by 2040

Priority Actions for [20XX-20XX]

[Define actions. List your priority actions in this table. Examples below. You may delete.]

[This page is provided as an example of how you might fill out template can be found on the following page. You may delete.]

People who don't speak English well



migreencommunities.com/plan



MICHIGAN **GREEN** COMMUNITIES

www.migreencommunities.com

Accelerator Cohort

Bronze & Silver

- Focused modules, topics selected by participants
 - Green stormwater infrastructure, materials management, sustainable purchasing, energy auditing, resiliency planning
- Monthly workshops, 3-4 months at a time
- Subject matter experts, consultants, small group & one-on-one support



For Silver, Gold, & Platinum

Catalyst Leadership Circle (CLC)

- Meets every other month, usually virtually
- Biweekly resource email

CLC Fellowship

- Grad students from across the state help CLC Members complete advanced sustainability projects
- Project deliverables are shared on the Catalyst Communities resource hub and graham.umich.edu/clcf



Sustainable Towns



*Connects local governments with
U-M students to expand office
capacity and elevate community
sustainability efforts using MGC
as a framework*



GRAHAM SUSTAINABILITY INSTITUTE
CENTER FOR EMPOWERING COMMUNITIES
UNIVERSITY OF MICHIGAN

Sustainable Towns

Semester 1:

- Students establish your community's sustainability baseline
- Help you identify sustainability goals
- Develop short-term work plans

Semester 2:

- Students further scope & implement these priority projects
- Position you for easy MGC Challenge submission & continued technical assistance

graham.umich.edu/project/sustainable-towns



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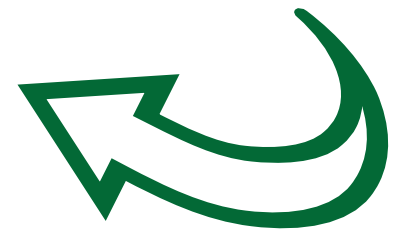
Right Now: Energy Navigators Technical Assistance

- Rural & remote communities
- 10 - 40 hours TA from GPI
- Energy planning, funding strategy, and more
- Complete intake by July 15
- See handout



<https://bit.ly/3GI4mtP>

Sign up
for June 4
webinar



Takeaways



Create MGC account/find your login credentials



Download templates at migreencommunities.com/plan



Visit Catalyst Communities



June 4 Energy Planning Webinar



Contact Information



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MICHIGAN**GREEN**COMMUNITIES



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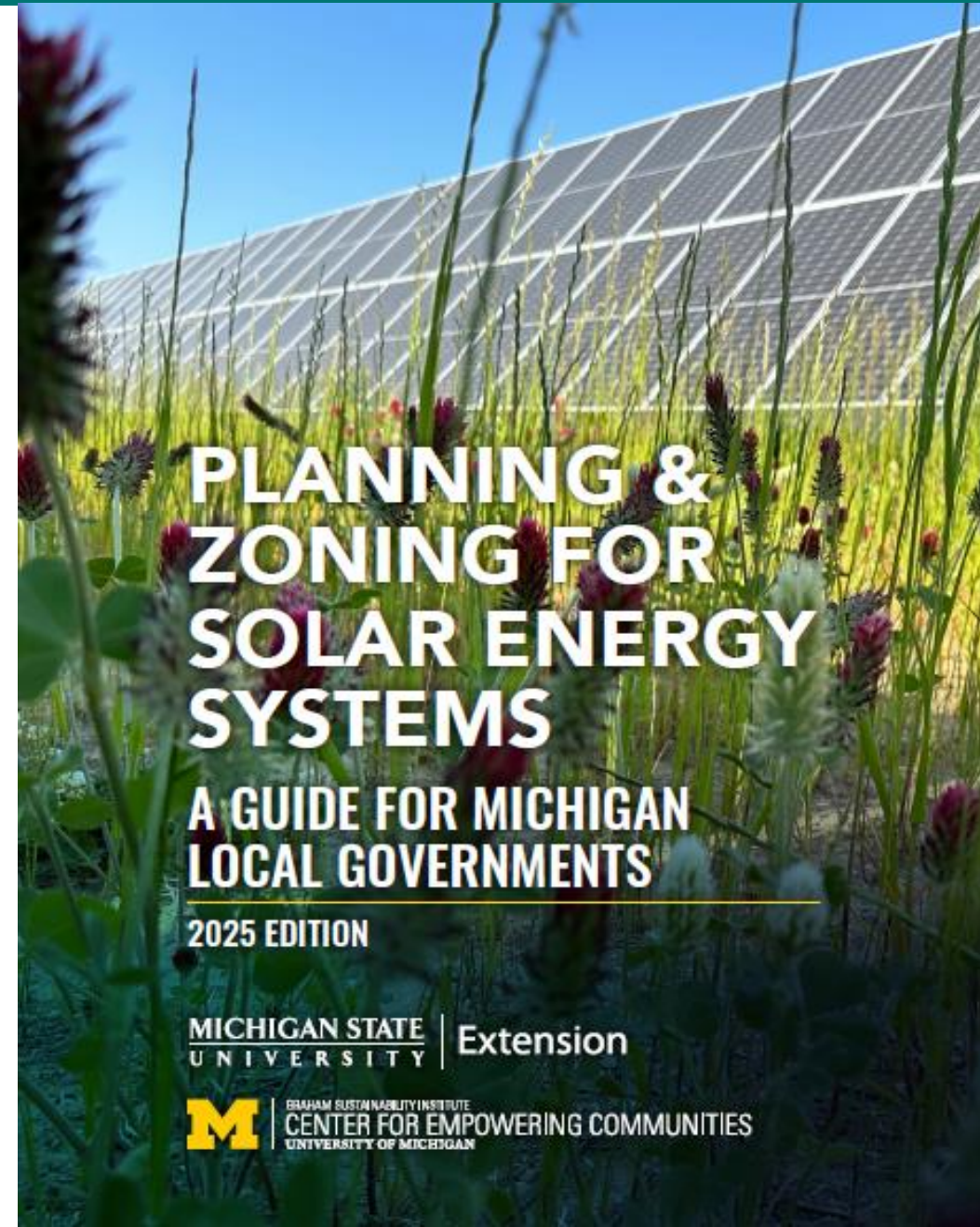


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Drum Roll Please....



Updated Resource!

extension.msu.edu/solarzoning

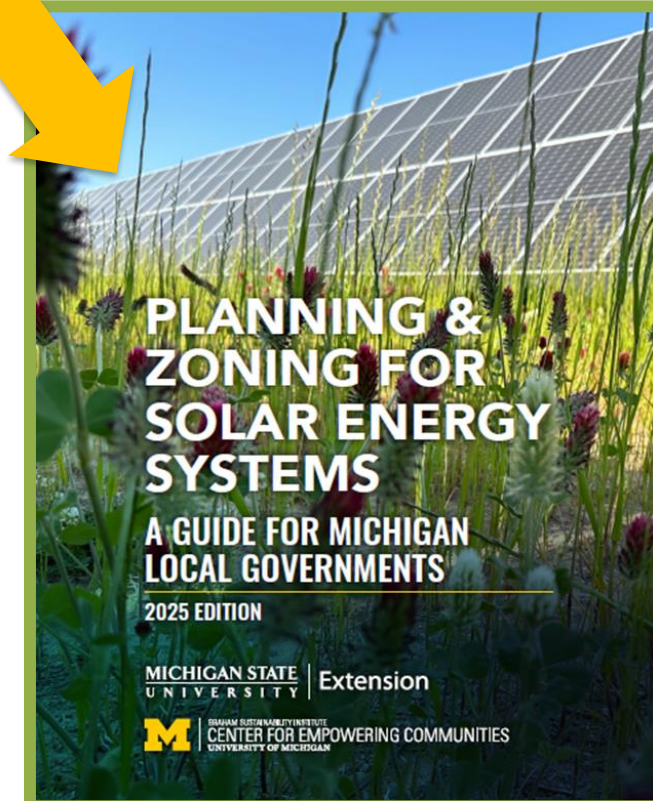
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2022

2025



What's changed? Legislation!

- **PA 235 of 2023-** 50% energy from renewables by 2030, 60% by 2035
 - Increases distributed energy generation cap to 10%
- **PA 233 of 2023-** MPSC certification option for permitting utility scale projects (CREO, Workable Ordinance)
- **PA 108 of 2023-** Payment in Lieu of Taxes (PILT) option for utility scale solar projects (may opt for standard depreciation)
- **PA 230 of 2023-** Solar panels permitted on land enrolled in PA 116, when conditions are met
- **PA 68 of 2024:** Homeowners Associations (HOA) cannot completely ban solar panels

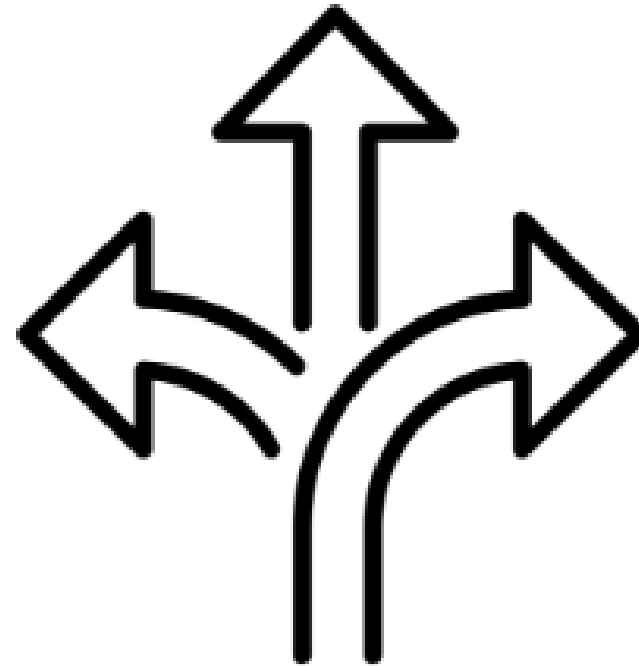


More on PA 233

- 50 MW+ for solar (200+ acres)
- New decision paths for zoning
- **All other scales are still local!**

MPSC:
Michigan
Public Service
Commission

CREO: Compatible
Renewable Energy
Ordinance CREO



WIO:
Workable
Incompatible
Ordinance

Comparison of Zoning Pathways

- Pros and cons for each option
- Detailed table comparing:
 - Permitting Process
 - Location Control
 - Setbacks
 - Height
 - Sound
 - Screening
 - Groundcover
 - Decommissioning

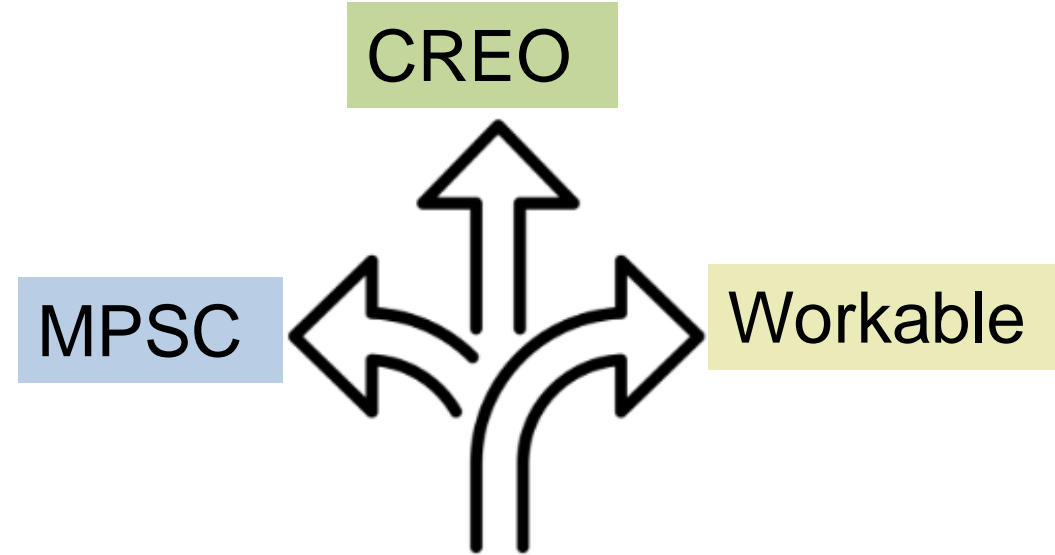


Table 3. Comparison of Zoning Items Between Zoning Pathways for Large SES

	Compatible Renewable Energy Ordinance (CREO)	MPSC	Workable Incompatible Ordinance (WIO)
Process	Use by right with site plan review by Zoning Administrator or Planning Commission [A]	Michigan Public Service Commission (MPSC) contested case [B]	Use by right with site plan review or special land use (SLU)
Location Control	All districts (General Provisions) [A]	Sec. 226(7)(f), Sec. 225(1)(n) All districts + Evaluation Criteria: 1) Will not unreasonably diminish prime farmland/ farmland devoted to specialty crops. 2) Shall consider feasible alternative development locations. 3) Shall consider the impact on local land use, including the % of land dedicated to energy generation.	Locally designated zoning districts or overlay as long as it provides ample and suitable land for development [C, D]

2025: New size classifications, suggested thresholds

Accessory: roof,
ground mounted

Small: up to 5 MW

Medium: 5-50 MW

Large: over 50 MW

Example Zoning District	Resource Production / Agricultural	Low-Density Residential	Commercial / Office	Industrial	Medium-Density Residential	Mixed Use
Roof Mounted	P	P	P	P	P	P
Accessory Ground Mounted	P	P	P	P	P	P
Principal Use (Small) (e.g., up to 5 MW)	SPR	SPR/SLU	SPR	SPR	SPR/SLU	SPR
Principal Use (Medium) (e.g., 5-50 MW)	SLU	SLU	SLU	SPR/SLU	X	X
Principal Use (Large) (e.g., over 50 MW)	See Page XX for discussion of options in light of PA 233					

P = Permitted (zoning standards apply); SPR = Site Plan Review; SLU = Special Land Use; X = Not Permitted

Solar is Scalable: Urban to Natural Landscapes

Solar Energy System Type	Natural	Rural	Urban	General Urban
Accessory Roof Mounted				
Accessory Ground Mounted				
Principal Use (Small)				
Principal Use (Large)				

Figure 1. Examples of Solar Energy System Types Across Different Geographies








Solar Energy System Type	Natural	Rural	Urban	General Urban
Accessory Roof Mounted				
Accessory Ground Mounted				
Principal Use (Small/Medium)				
Principal Use (Large)				

Figure 1 shows the type and scale of SES that exhibit predominant factors for compatibility in a given setting.

New Issues or Deeper Dives

- Zoning pathways-utility scale
- Dual siting with BESS, wind, solar
- Stormwater
- Ecovoltaics and agrivoltaics
- Residential scale (HOA, wall, roof, building integrated systems)
- Utilizing some definitions and options under PA 233



Sample Zoning Ordinance Language

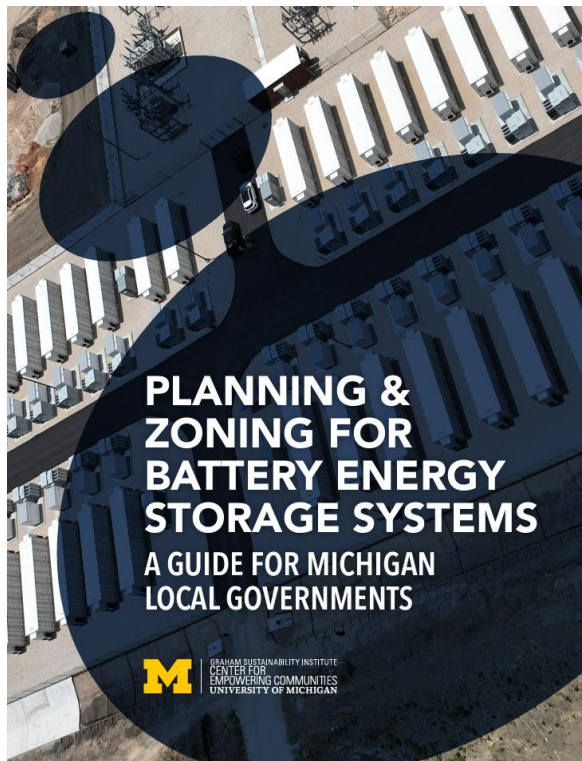
ZONING


- All scales (small to large SES)
- General Provisions to SLU
- Fill in the blank options
 - Key local decision points
 - Suggestions
 - Local customization required
 - Commentary

SITE PLAN REVIEW (SPR)

- Sample ordinance language
- New (2025)
 - Stormwater Plan
 - Grading Plan
 - Complaint Resolution Plan

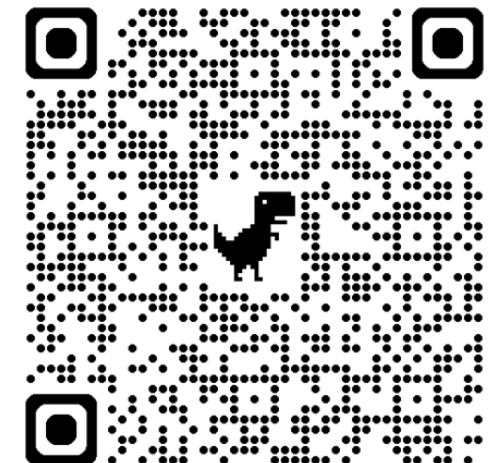
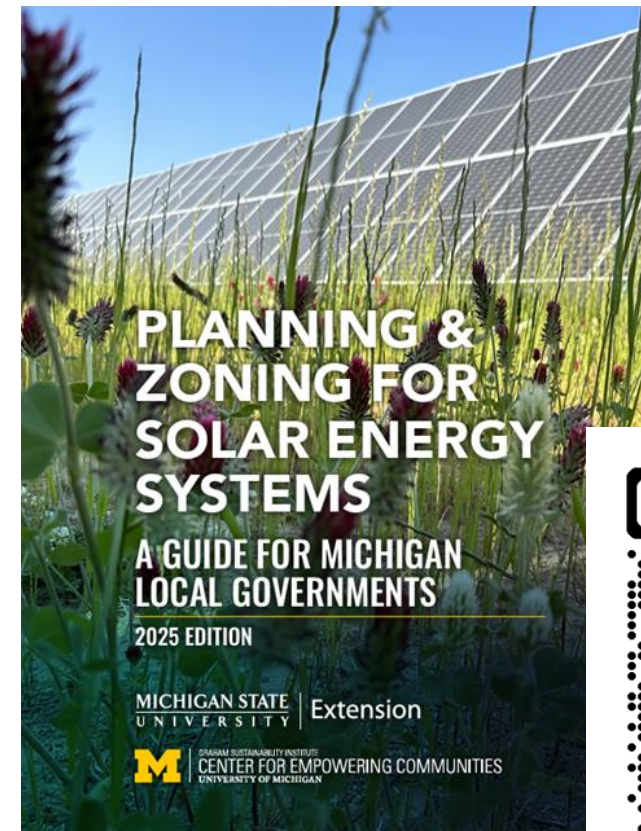
Planning and Zoning Resources: Battery Energy Storage Systems (BESS), Wind Energy (update 2026), Solar



 MICHIGAN STATE UNIVERSITY Extension	
<i>Michigan State University Extension</i> <i>Land Use Series</i>	
Sample Zoning for Wind Energy Systems	
<small>Original version: March 6, 2017 Last revised: October 6, 2020¹</small>	
This document presents zoning ordinance sample amendments for utility scale wind energy systems (WES) and smaller wind electric generation systems for an individual business or home.	
Contents	
Purpose and Use of Sample Zoning.....	2
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*"Thirty seven million acres is
all the Michigan we will ever have"*
 William G. Milliken

¹ There are earlier versions of this document dating back to 2008. They should not be used. There are significant and important updates and changes to this version.



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Renewable Energy Academy

Planning & Zoning Resources for Renewables

Madeleine Krol
May 20, 2025

MAP 2025 Spring Institute: Renewable Energy Summit

What is the Renewable Energy Academy?

- REA is a one-stop-shop hub for large-scale renewable energy
- Offers a suite of resources to aid in the process of planning and zoning for renewable energy
 - Tailored training, webinars, workshops, connecting to experts & peers
 - Resources, guides, tools
 - Individual technical assistance for local officials and planners





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Renewable Energy Academy Partners



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



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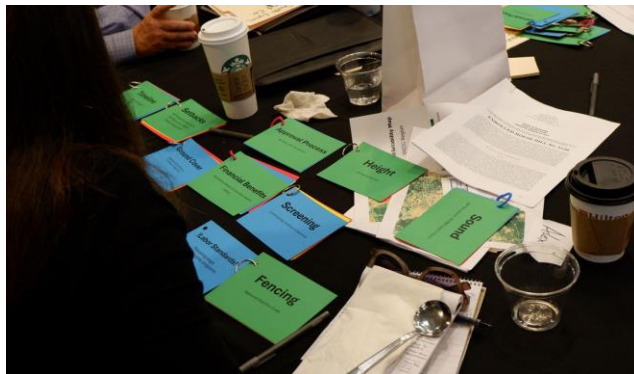


MSU EXTENSION



REA Workshop Series on PA 233

- 9 (of 14) regions; 320+ participants from local government representing 110+ jurisdictions;
 - Two additional workshops for planning consultants with MAP!
 - Recorded version of the workshop
- Basics of planning and zoning for large-scale solar, wind, battery storage
- Overview of the Act and zoning options for local govs
- Guided activities, peer-to-peer sharing



Join us after the keynote luncheon:
Playing Your Cards Right – Navigating
Permitting for Large Renewables

Resources on PA 233

- Overview of PA 233 slide deck & FAQs
- Checklists for local governments navigating:
 - the MPSC permitting process
 - the Compatible Renewable Energy Ordinance (CREO) Process
- Zoning resources:
 - Data on “Workable” Ordinances
 - Sample solar, battery storage language, annotated wind template (MSUE)
 - Sample CREO
- More resources on MPSC’s page!

Michigan's New Renewable Energy Siting Law

Program: **Renewable Energy Academy**
Program details » | All Renewable Energy Academy projects »

Significant changes to the permitting process for renewable energy projects were enacted in HB 512, which goes into effect on November 1, 2023. The new law, Michigan's New Renewable Energy Siting Law, helps local governments navigate the permitting process and provides guidance on how to prepare for the new law.

Select resources:

- **Overview of PA 233 (PDF)** - A checklist for local governments.
- **Frequently Asked Questions** - Answers to common questions about the new law.
- **Navigating the MPSC Renewable Energy Siting Process** - A checklist for local governments.
- **Adopting and Navigating** - A checklist for local governments.
- **Guidance on “Workable” Renewable Energy Ordinance** - A checklist for local governments.
- **Annotated Solar and Wind Zoning** - A checklist for local governments.
- **Sample Compatible Renewable Energy Ordinance** - A checklist for local governments.

Mackinac Bridge

graham.umich.edu/project/MI-energy-siting

Michigan Public Service Commission

About the MPSC | Commission Activities | Consumer Information | Regulatory Information | E-Dockets

Renewable Energy and Storage Facility Siting

Regulatory Information > Facility Siting > Renewable Energy and Storage Facility Siting

Individual training

6-part series with NEMCOG

- Introduction to Planning and Zoning for Renewables
- Advanced Training
- Four Zoning Nuts-and-Bolts Mini Workshops



Washtenaw County Resiliency Office

- Upcoming workshop on battery storage and solar, developing sample ordinance for the county

Training for local officials:

- Battery storage, solar, wind?
- PA 233, zoning, planning?
- Who else is collaborating?



Review of zoning ordinances

- Comparing it to sample ordinance, PA 233
- How does this fit with planned goals?
- What's your intent? What message is this sending to developers?

nearest facility structure shall be:

Setback Description	Setback Distance
Occupied building and dwellings on nonparticipating properties.	650 feet from the nearest point on the outer wall and 100 feet from the property line
Public road right-of-way	100 feet measured from the nearest edge of a public road right-of-way

C. Height.

1. Battery Energy Storage System. The height of battery energy storage system structures, except for electric distribution and transmission poles, shall not exceed a height of 20 feet.

D. Fencing. The system shall be completely enclosed with fencing in compliance with the latest version of the National Electrical Code or any applicable successor standard. Fencing shall be 8 feet high with 2 rows of wire and sound barrier dead liner.

E. Sound. The sound pressure level of a BESS shall not exceed a noise level of 45 DBA average hourly decibels as modeled at the property line. Decibel modeling shall use A-weighted scale as designed by the American National Standards Institute. The sound level limits apply to the contribution from the BESS only and do not include contributions from background ambient sounds.

1. Post-construction sound survey. Documentation of sound pressure level measurements shall be provided to the Zoning Administrator by a third-party qualified professional selected by the Planning Commission and at the expense of the BESS system owner within 12 months of the commencement of the operation of the project. The study will be designed to verify compliance with sound standards applicable to this ordinance.

F. Lighting. The system must implement dark sky-friendly lighting solutions and satisfy the provisions of Section 5.

G. Host Community Agreement. The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Battery Energy Storage System owner must pay the Township \$2000.00 per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.

H. Safety Signage. The system shall post signs in compliance with the National Electric Code and NFPA 855 or any applicable successor codes in place at the time of application for approval, including information on the system type and technology, special hazards, the type of suppression system installed in the area of the BESS

Krol, Madeleine
Deleted: NFPA 70/70E

Krol, Madeleine
Deleted: Additionally, signage shall be provided per NFPA 855, or any applicable successor code in place at the time of application for approval.

Krol, Madeleine
I defer to Caitlyn's comment on occupied community buildings

Krol, Madeleine
I'm unsure of the pros/cons of including a property line setback in this way, rather than a separate row in the table.
Are you referring to the non-participating property?

Krol, Madeleine
I want to flag that the NEC fencing requirement stipulates either a fence at least 7 ft tall, or instead, a fence at least 6 ft tall with 3 strands of twisted wire. This does not say how many strands?

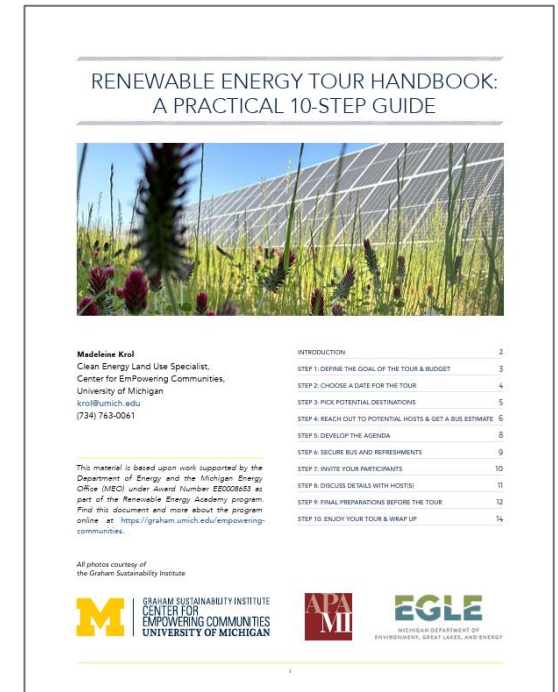
Krol, Madeleine
You could clarify whether or not fencing is subject to setback requirements. You do clarify this for landscaping, for example.

Krol, Madeleine
Can you clarify whether this refers to "any" property line, or a non-participating property line (imagine a case where a project spans multiple nonparticipating)?

Krol, Madeleine
With past conversations on community benefits agreements in mind, I again defer to your attorney about the legality of including this as a requirement for a S11 permit as it is suggested

Renewable energy site tours

- Bus tours with MAP since 2022
 - Lansing Tour with Ingham and Eaton Counties
 - Northern Michigan Tour with NEMOG
- Plan your own with 10-step handbook
- Next tour planned for August!




Resources

A division of the Office of the Provost

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RENEWABLE ENERGY ACADEMY

Home / Renewable Energy Academy

Renewable energy is on the rise and wind and solar development are possible across most of Michigan—especially near transmission lines. If your community hasn't already been approached by energy developers, it likely will be approached within the next few years.

Is this a threat or an opportunity for your jurisdiction? That depends on whether you're prepared with existing, up-to-date zoning ordinances for wind and solar development. If not, now is the time to determine whether and how these energy systems fit within your community's land use goals, which will help landowners understand what is possible on their property.

We're here to help! With support from the Michigan Department of Environment, Great Lakes, and Energy (EGLE), we offer a suite of resources to aid in the process of planning and zoning for renewables.

Menu of Services

- **Introduction to Planning and Zoning for Renewables:** Offered to elected and appointed officials, this foundational course requires no prior knowledge of renewable energy. You'll learn how to understand local impacts—both positive and negative—and ensure any energy development aligns

OPPORTUNITY

Master BESS Planning & Zoning


Get the essential guide to planning and zoning for battery energy storage systems in Michigan. Learn zoning options, sample language, and how to navigate new energy laws. Download *Planning & Zoning for Battery Energy Storage Systems* today!

[Get the guide!](#)

EVENTS



graham.umich.edu/rea

 **Department of Environment, Great Lakes, and Energy**

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Renewable Energy Academy

Home > About > Divisions and Offices > Materials Management > Energy > Renewable Energy > Renewable Energy Academy


Contact

Ian O'Leary
IOleary@Michigan.gov

The Renewable Energy Academy (REA) is a one-stop-shop for large-scale renewable energy in Michigan, hosting a hub for resources, tools, and experts in the field and providing no-cost technical assistance to communities.

Additionally, through funding from the U.S. Department of Energy's *Battery Energy Storage* program, the Energy Services Unit is partnering with the University of Michigan's Graham Sustainability Institute, Michigan State University Extension, 5 Lakes Energy, the Michigan Association of Planning, and more to generate new REA materials and services to further empower the decision-making capacity of any interested party on the topic of large-scale renewable energy.

Home Planning & Zoning Funding Opportunities Clean Energy Information Bureau Our Team



Renewable Energy Academy Workshop

The Renewable Energy Academy (REA) Workshop, designed and



michigan.gov/egle/about/organization/materials-management/energy

Renewables Ready
Communities Award

Questions?

Reach out to me!

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