# REA Workshop: List of Resources

## EGLE Energy Services Unit

- Funding Opportunities
  - **Renewables Ready Communities Award**
  - Community Energy Management Program
    - Municipal Energy Efficiency and Renewable Energy
  - MI Solar Access Program
    - Household Energy Efficiency and Renewable Energy
  - Home Energy Rebate Programs
- Renewable Energy Academy Webpage

## UM Graham Sustainability Institute's Center for EmPowering Communities

- Michigan's New Renewable Energy Siting Law Overview and Resources
  - https://graham.umich.edu/project/MI-energy-siting
    - Overview of PA 233
    - FAQs about PA 233
    - Guidance on "Workable" Renewable Energy Ordinances
    - Annotated Solar and Wind Zoning Templates
    - Sample Compatible Renewable Energy Ordinance (CREO)
    - Analysis of which communities have a renewable energy zoning ordinance that could, in a limited and strict sense, be considered a CREO
- **Guidebook:** Planning and Zoning for Battery Energy Storage System (BESS)
- Energy Zoning Database

## MSU Extension Planning and Zoning Resources

- **Guidebook:** Planning and Zoning for Solar Energy Systems: A Guide for Michigan Local Governments
- **Guidebook:** Sample Zoning for Wind Energy Systems 2020

## Michigan Public Service Commission Resources

- MPSC Workgroup Meeting Recordings, Slides, and Recorded Comments
  - https://www.michigan.gov/mpsc/commission/workgroups/2023-energy-legislation/renewable-energy-and-energy-storage-facility-siting
    - Final Application Instructions and Procedures
    - Application Checklist
    - Sample Decommissioning Agreement

## Michigan Townships Association Resources

- Resources offered to members only through their webpage.
  - https://michigantownships.org/mta-sample-creo-now-available/
    - Sample CREO
    - Sample Application

        - Escrow Policy and Escrow Affidavit

## EGLE Office of Climate and Energy

- MI Healthy Climate Plan
    - This will provide you with the “bigger picture” of Michigan’s renewable energy goals.
- MI Solar for All
    - Increasing household access to affordable solar energy.
- Climate Pollution Reduction Grant (CPRG) Information
    - Expansion of Renewables Ready Communities Award, establishment of a Brownfield Solar Incentive Pilot Program, expansion of the Renewable Energy Academy, etc.

**DISCLAIMER:** The Workable and Unworkable values given in this spreadsheet are only ranges of estimates based on qualitative assessments and some quantitative analysis of past projects that resulted in a renewable energy project. "Workability" is an art, not a science, and what's workable for one developer for one project may not be workable for another. This activity is intended to provide an overview of the options for each zoning pathway to aid in the identification of your community's zoning preferences. If your community is not intending on adopting a CREO or deferring to the MPSC, the workable column could help in getting your ordinance to a "workable" starting point. Due to the context dependency of workability, however, it's important to stay open to amending your ordinance later on to accommodate a specific project's needs. Please note that some zoning considerations may not be included in this activity and could be important when developing a zoning ordinance. We recommend consulting with a legal expert, a planner, and/or a renewable energy planning and zoning expert for comprehensive guidance.

| SOLAR ZONING | CREO | MPSC | Workable | Unworkable |
|---|---|---|---|---|
| **Setbacks** | NP Property Line: 50 ft<br>NP Structure: 300 ft<br>Public Road: 50 ft | Same as CREO | NP Property Line: 20-50 ft<br>NP Structure: 200-300 ft<br>Public Road: 50 ft<br>P Property Line: 20-50 ft<br>P Structure: 200 ft | NP Property Line: 50+ ft<br>NP Structure: 300+ ft<br>Public Road: 50+ ft<br>P Property Line: 50+ ft<br>P Structure: 200+ ft |
| **Sound** | NP Outer Wall: 55 dBA Leq (1-hour) | Same as CREO + **Conditions of Approval:**<br>1) Contract with a third-party acoustics expert for post-construction monitoring.<br>2) Demonstrate compliance and maintain compliance through sound mitigating measures if necessary. | NP Property Line: Range between Ambient + 5 dBA (Leq) and 60 dBA (Max) | NP Property Line: < 45 dBA Max |
| **Decommissioning** | Financial Assurance **after deducting** salvage value:<br>- 25% on Operation<br>- 50% by 5th year<br>- 100% by 10th year | Same as CREO, reviewed and updated every 3-5 years, **+ Conditions of Approval:**<br>- Repair all drainage systems damaged during construction and decommissioning<br>- Demonstrate that financial assurance has been acquired and will be maintained. | Decommissioning Plan agreed upon by Developer and Community, including Financial Assurance **after deducting** salvage value, reviewed every 3-5 years:<br>- 100% upon permitting | Financial Assurance **including** salvage value, reviewed and updated every 3-5 years + Recycling of All Materials:<br>- 125% upon permitting |
| **Screening** | None | **Condition of Approval**: Agreeement to implement screening, approved case-by-case by Commission | **Types of Screening:**<br>Landscaping OR<br>Privacy Fencing<br><br>Ex: Standards of underlying zoning district, if inadequate then PC may require along NP residential uses. Refer to MSU-E/UM sample zoning guidebook. | **Types of Screening:**<br>Landscaping + Privacy Fencing<br>OR<br>Berming<br><br>Ex: Multiple rows of trees at mature height all around project. |
| **Height** | 25 feet at full tilt | Same as CREO | 14-18 feet or district height | Below 14 feet |
| **Ground Cover** | None | **Evaluation Criteria:**<br>Vegetative Groundcover in consideration of MSU's Michigan Pollinator Habitat Scorecard<br>+ similar **Condition of Approval** | Sites not enrolled in PA 116 must meet one or more of the four types of Dual Use:<br>1. MSU Pollinator Habitat Planning Scorecard for Solar Sites: score of 76 or more.<br>2. Conservation Cover<br>3. Forage Cover<br>4. Agrivoltaics | Must meet one of two types of Dual Use:<br>1. Forage Cover<br>2. Agrivoltaics |
| **Location Control** | **All districts** | All districts **+ Evaluation Criteria:**<br>1) Will not unreasonably diminish prime farmland.<br>2) Shall consider feasible alternative development locations<br>3) Shall consider the impact on local land use, including the % of land dedicated to energy generation. | **!Districting!**<br>**!Lot Minimums!**<br>Implemented in a way that still provides ample and suitable land for renewable development + large patch size + access to transmission/substations is considered. | **!Overlays!**<br>**!Districting!**<br>**!Lot Maximums!**<br>Implemented in a way that does not provide ample and suitable land for renewable development. |
| **Additional Financial Benefits** | **Nothing required of developer through zoning.**<br><br>*Reminder:*<br>*If permitted locally, eligible for RRCA* | Guaranteed $2,000/MW HCA for Zoning Authority | **Community Benefits Agreement**<br>Request financial benefits tied to direct impacts of project on community.<br><br>*Reminder:*<br>*If permitted locally: Eligible for RRCA*<br>*If permitted at state: Guaranteed HCA* | **Community Benefits Agreement**<br>Require $/MW CBA that's greater than the MPSC's HCA requirement.<br><br>*Reminder:*<br>*If permitted locally: Eligible for RRCA*<br>*If permitted at state: Guaranteed HCA* |
| **Review Timeline** | 120-240 Days | 365 Days | The closer to CREO, the better. Should not exceed 365 days. Streamlined by Resolution Ex: 240 days | No time limit |
| **Approval Process** | By Right + Site Plan Review | Commission Contested Case Process | Special Land Use | |
| **Process Fees** | No Additional Fees for Renewable Energy | Contested Case Fees<br>$75,000/ALU | Renewable Energy Zoning Application Fee with Escrow Policy | |

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

# REA Academy Workshop Activity: Community Zoning Prioritization

The Renewable Energy Academy recommends proactively planning and zoning for large-scale renewable energy development. This means that if a workable ordinance is preferred, the local government would need to attempt to draft an ordinance that they believe to be workable before a developer submits a project application. The card values in this activity are meant to aid local governments in determining what a workable ordinance could look like for them. However, the unique context of a real project and developer circumstances could result in different workable and unworkable values than provided in the example cards. Your objective for this activity is to identify your priority zoning items and practice striking the balance of workability.

| **CREO Standards**<br>(Sec.226(8) of PA 233) | **PA 233 Standards**<br>(Sec.224, 225, 226)<br>**+ MPSC Conditions of Approval** (Draft) | **Workable Standards**<br>(Solar Zoning Guidebook + Past Projects + Developer Feedback) | **Unworkable Standards**<br>(Past Projects + Developer Feedback) |
|---|---|---|---|

**!Exclamation Points!** denote potential "dealbreaker" items for workability depending on how it is implemented.

## Instructions

### Step 1: Craft your "Dream Ordinance"

Don't worry about workability yet. One by one, flip through each card set and choose your most preferred option, regardless of color (aka, pathway). **You may remove a card set completely if it's not a priority for your community.** Do this until you've crafted your desired zoning ordinance and process.

**If your Dream Ordinance includes:**

1. **Only green cards**: a CREO may be the best pathway for your community.
2. **Only green and blue cards**: the MPSC's process or a workable ordinance with these standards may be the best pathway for your community.
3. **Some yellow or red cards** mixed in: a workable ordinance might be the best pathway for your community.
4. **Only red cards**: this suggests your community is leaning toward an Unworkable ordinance. If the risk of being called Incompatible and having the project permitted through the MPSC is understood and accepted, you can stay here. If not, compromising to become Workable might be best.

**If you have ANY yellow or red, you are incompatible,** and the developer has the *option* of permitting through the MPSC. As such, removing less developer-friendly **blue cards**, **yellow cards**, and **red cards** could make a developer more comfortable with staying local. Keep this in mind for Step 2.

## Step 2: Balance your ordinance priorities.

Next, flex the muscle of striking workability. Try the following exercises if your spread allows.

1. Change one **red card** to **green, yellow,** or **blue**. What change did you make?

    a. If you could keep only one **red card**, which would you pick?

2. If you have any **"dealbreakers"** (exclamation mark), find one, and change it. What change did you make?

3. Change a **yellow card** to a **green card**. What item did you choose?

4. Based on the colors of your final spread, do you think a developer would deem this ordinance workable, or unworkable?

    a. *If workable,* the project would get permitted through the local process and therefore be eligible for the RRCA, receiving $2,500-$5,000 per MW.

    b. *If unworkable,* the project would get permitted through the MPSC, and your municipality would receive $2,000 per MW and $75,000 in intervenor funds for the contested case process.

## Recommended Homework:

### Connecting Zoning Priorities to Comprehensive Plan

To provide justification for rezoning for renewable energy, any zoning changes would ideally be tied to goals outlined in your Comprehensive Plan. While we understand there hasn't been ample time given to update your plans to accommodate the new siting landscape, we encourage you to try your best to find where these zoning priorities align with your plans.

First, list your top 5 zoning priorities identified in the activity. Then, note which pathway (color) is preferred for that zoning item. Lastly, review your Comprehensive Plan and find the goals and objectives that support that zoning item decision.

| Priority Zoning Item | Preferred Pathway | Comprehensive Plan Justification |
|---|---|---|
| *Example: Height* | *Workable* | *Goal 2: Quality of Life, Objective 5: Continue to enhance the visual appearance of the County through zoning regulation and site plan review standards for setbacks, signs, landscaping, lighting, etc.* |
| **1.** | | |
| **2.** | | |
| **3.** | | |
| **4.** | | |
| **5.** | | |

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

# Renewable Energy Academy Workshop

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# Housekeeping

**Thank you Region II Planning Commission for helping us organize the first REA Workshop!**

- Who's all here today?
- Folder for each municipality has regional resource maps and activity materials
  - Table materials: "MPSC Draft Application Instructions" and "PA 233"
- Follow-Up email after workshop with links to all resources
- Lunch at 12:00 – no other breaks, so come and go as you need!
  - Photos



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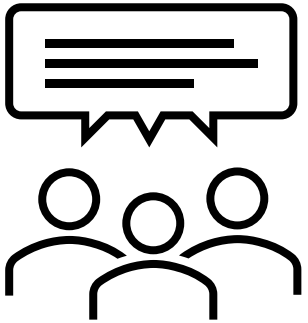
# Q&A

Our purpose here is to educate & inform, so ask questions freely—*especially* if a question is keeping you from understanding the material.

However, because many questions will be answered by upcoming slides, we encourage you to write them down and wait for designated Q&A Breaks whenever possible.

Due to time, we might have to hurry Q&A at points.



# Workshop Agenda

## Morning Session

- Introductions to our groups
- Utility-Scale Renewable Energy Basics, Benefits and Concerns
- PA 233 and The Four Pathways
- Workability: The Balancing Scale

## Lunch at 12:00-12:45

## Afternoon Session

- Workability: Planning & Community Goals
- **Activity**: Community Zoning Prioritization & Pathway Selection
- Closing Remark Resources & Who's Who
- OPTIONAL: Office hour (2-3 pm)

# Who are we?

- EGLE → Energy Services Unit
  - Zoning analysts with technical assistance backgrounds.
    - Not involved with PA 233
    - Not pushing renewables, just sharing options in light of state law.
  - Our opinion is that local zoning is still effective & necessary.
    - Decision on how to apply this information is yours.
  - Part of the "Renewable Energy Academy" with UM, MSU, MAP

# Cohost: UM's Center for EmPowering Communities

- Research on land use policy for renewable energy, community impacts

- Funding from State Energy Office in EGLE
  - Facilitate planning & zoning, e.g.:
    - More training, resources, review draft zoning ordinances, answer questions
    - Bus tours, connect you to MSU-Extension, other communities
  - Provide state-based data
  - Present pros and cons

GRAHAM SUSTAINABILITY INSTITUTE
CENTER FOR EMPOWERING COMMUNITIES
UNIVERSITY OF MICHIGAN



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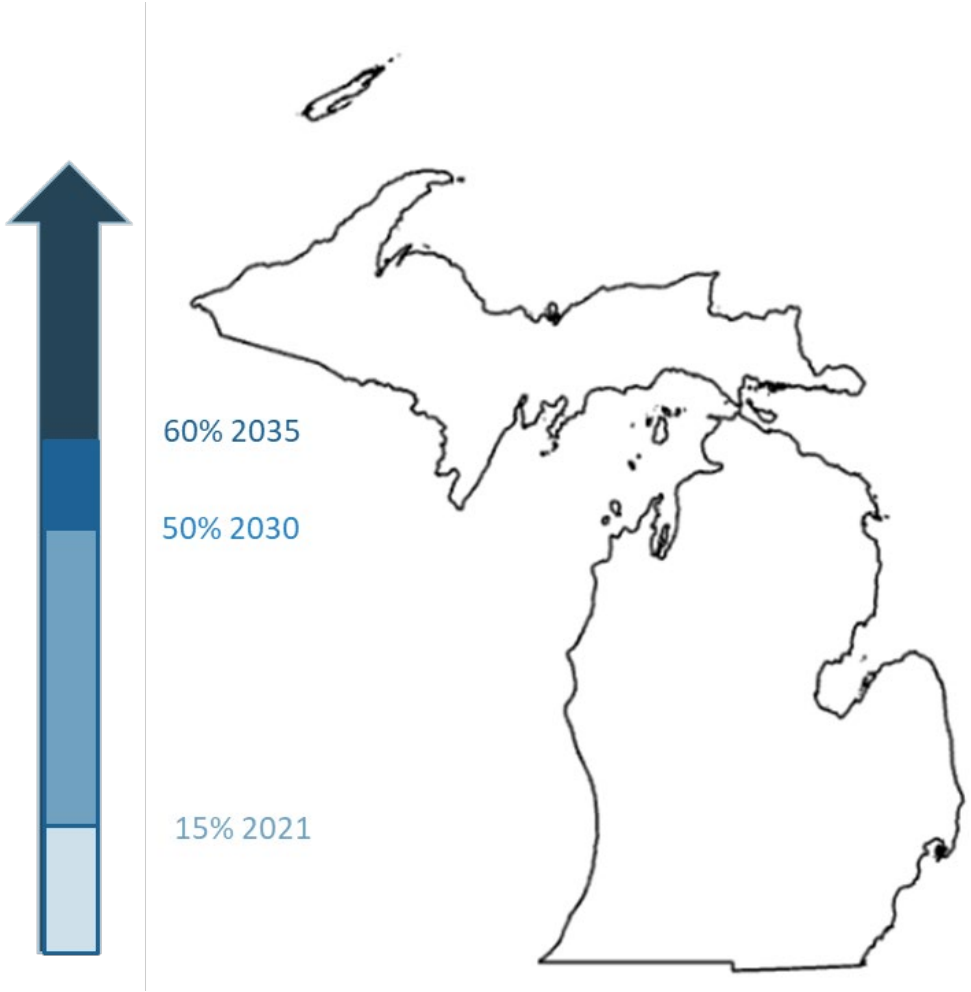
# The Scope

Our goal: Help communities prepare for the new renewable energy siting landscape considering PA 233 and new renewable goals.

- Renewable Portfolio Standard of 50% by 2030
- Clean Energy and Jobs Package: PA 233, 234, 235

Bigger picture of renewables is out of scope

- We're taking these policies at face value. Changing them is a valid conversation, but for a different occasion.




*Renewable Energy Portfolio Standard*

# Public Act 233 of 2023

Creates an option for developers to ask the Michigan Public Service Commission (MPSC) to permit a grid-connected renewable energy project if an affected local unit does not have a "compatible renewable energy ordinance" (CREO).

**This option is not present until Nov. 29th, 2024.**

**Solar Energy:**
50 MW nameplate capacity

**Energy Storage:**
50 MW nameplate capacity with an energy discharge capability of 200+ MWh

**Wind Energy:**
100 MW nameplate capacity

1. A developer is not **required** to go to MPSC. They may stay local even with an "incompatible" ordinance.
2. Once at permitting, project already has a **voluntary landowner host**. No eminent domain.



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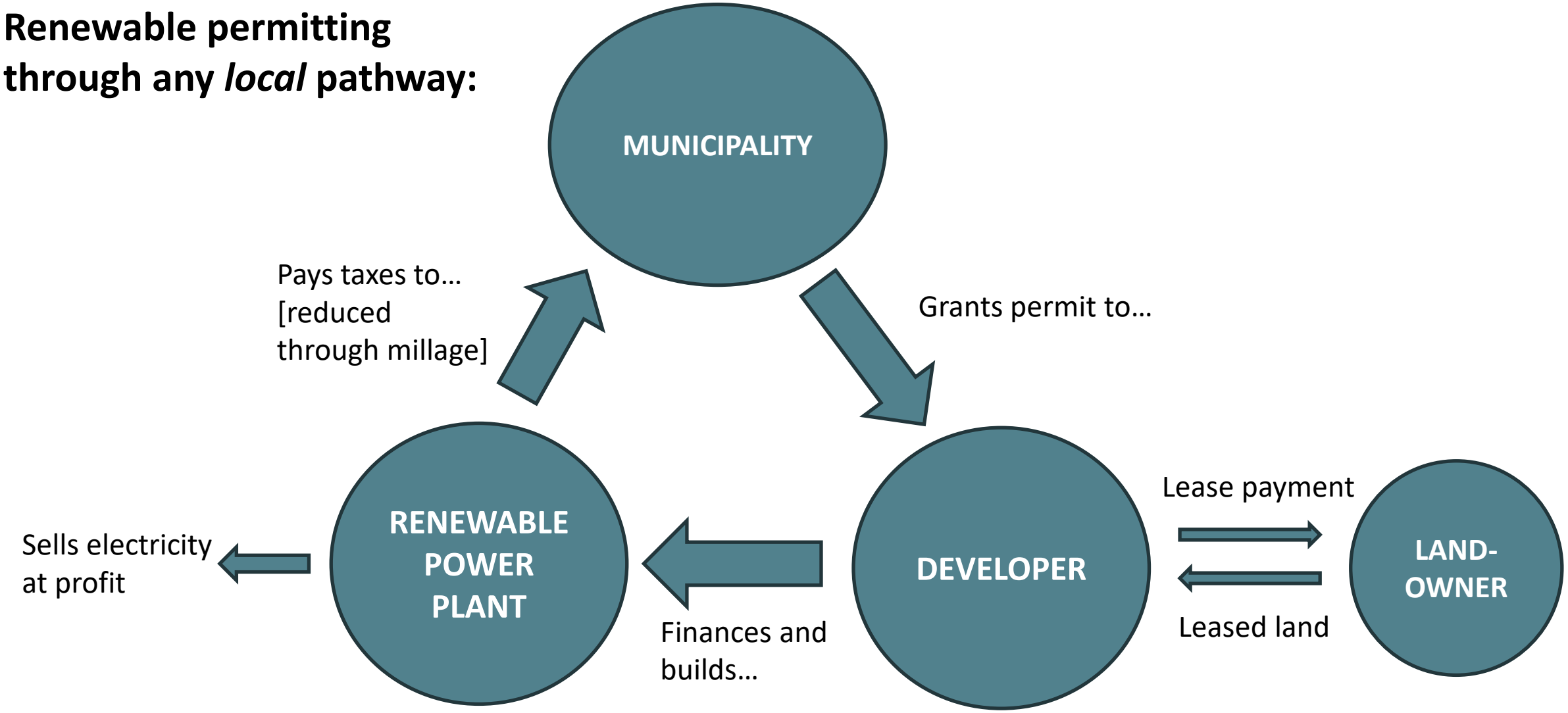
# Renewable permitting through any *local* pathway:



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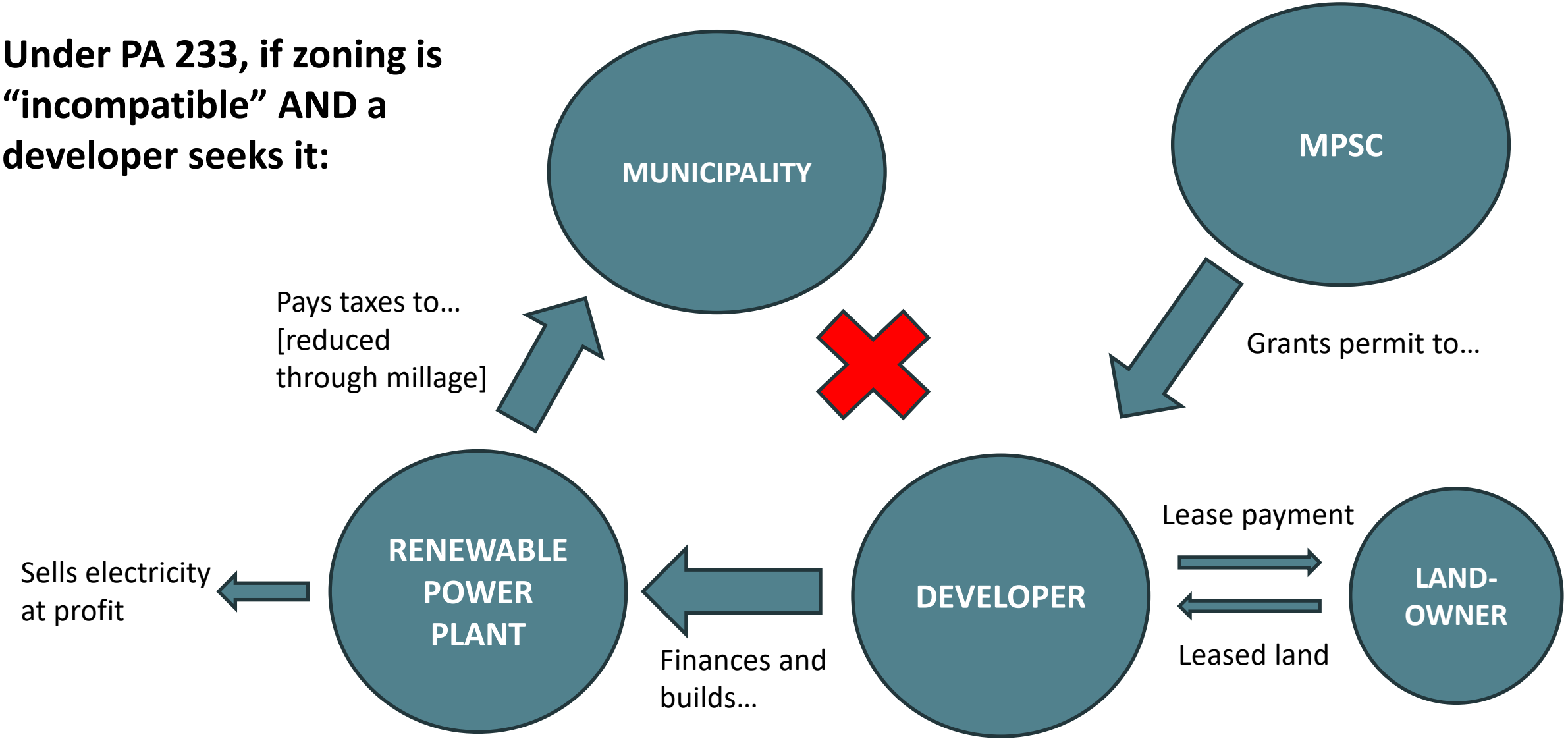
# Under PA 233, if zoning is "incompatible" AND a developer seeks it:



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# 4 Permitting Pathways - Preview

**INCOMPATIBLE**
Developer *can* call MPSC

## Compatible Renewable Energy Ordinance (CREO)

Specific, prewritten zoning standards.

Permissive. Easy projects.

## State-Level Certification (MPSC)

Developer or Host asks MPSC for certificate.

Project must meet MPSC's standards.

## Workable Ordinance

Stricter than CREO, but reasonably comfortable for development. *Ideally* stays local.

No two are the same.

## Unworkable Ordinance

Too strict for reasonable development.

*Likely* shifts to MPSC.



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# Quick spoiler:

- Workable ordinances can work. Proactive zoning is still critical.

- Due to significant drawbacks in State siting, many developers will prefer standard *workable ordinances*. State siting is a “break glass in case of emergency.”
  - The MPSC is currently supporting this as well.

Additionally, the “RRCA…”

# Renewables Ready Communities Award (RRCA)

- Developers must *pay communities* for State siting ($2k per MW). Initially, this disincentivized communities from updating their own ordinances. Not great for developers – State siting has many downsides for them, covered later.

- A grant from the State for *local* permits balances this, incentivizing ordinance updates *and* routing developers through a process which saves them time and money. Makes Workable better for both.

The RRCA provides up to $5,000/MW to permitters and hosts of utility-scale renewable energy projects which underwent local permitting after Oct 2023.

There is no deadline to **apply** — open until funds are depleted. No immediate risk of running out.

# Renewable Energy Basics

# What is Utility-Scale Renewable Energy?

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

Our focus will be on **utility-scale** systems **(large + principal use + grid connected)** as most conversations about zoning (like PA233) surround these.

- Accessory or *non-grid* systems, like rooftop or homestead, still subject to local zoning.

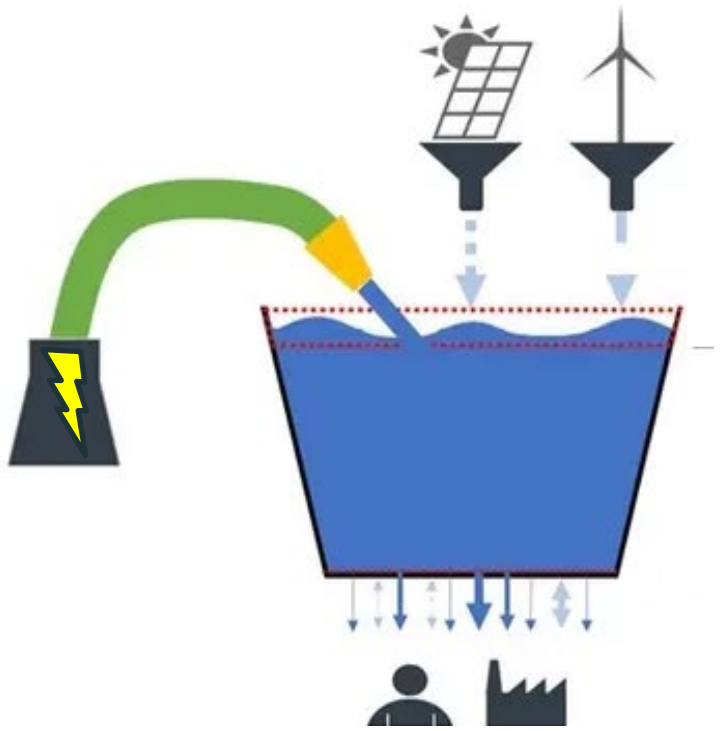


Source: Planning & Zoning for Solar Energy Systems: A Guide for Michigan Local Governments

# What does grid-connected mean?

- Electricity goes to the grid, which is the full eastern half of the US—then utilities (DTE, Consumers, etc.), buy it and distribute it through their lines.

- Bucket of Water Analogy:
  - Can't pick what you drink: Clean is the same as coal.
  - Any cost or reliability impacts affects *the whole grid*.
    - Fuel costs of coal, intermittency of wind/solar
  - Due to RPS, a fixed amount of renewables will be built regardless of who hosts them.





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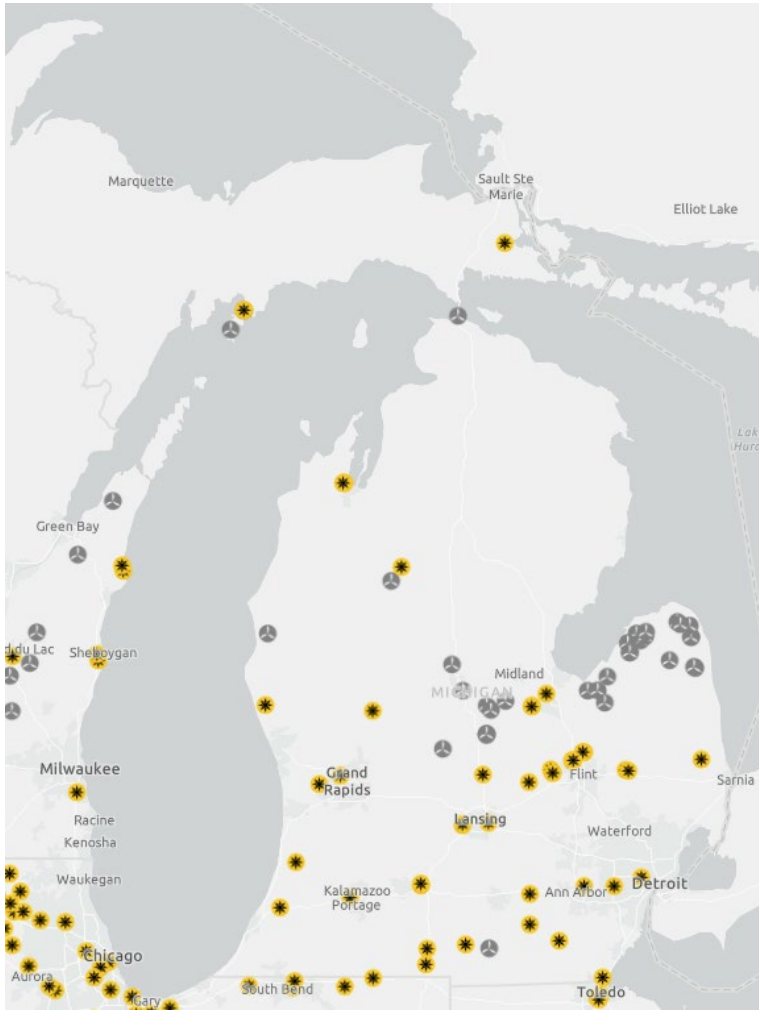
# Utility-Scale Renewable Energy in Michigan




Source: U.S. Energy Mapping System, https://www.eia.gov/state/maps.php

This is very hypothetical! **Not all of this will be built!**

| | Avg MW of existing | Total MW existing | Avg MW of proposed | Total MW proposed | Rough average acres per MW |
|---|---|---|---|---|---|
| Solar | 17 | 996 | 160 | 20,152 | 10 |
| Wind | 92 | 3,777 | 197 | 2,362 | 0.5 |
| BESS | 1 | 1 | 150 | 14,000 | 0.1 |

**For comparison:**
33rd in the US for percentage of renewables.
Our energy is 15% renewable; top states are 46-60%.

# Why so much activity?

Even prior to new legislation, electricity *purchasers* (utilities) were calling for a 4x increase in renewables.

Efficiency improvements, cost reductions, and decreased fuel dependency have made renewables cheap.

**Consumers** (2021 IRP)
Up to 80k acres
by 2040

**DTE** (2022 IRP)
Up to 65k acres
by 2042

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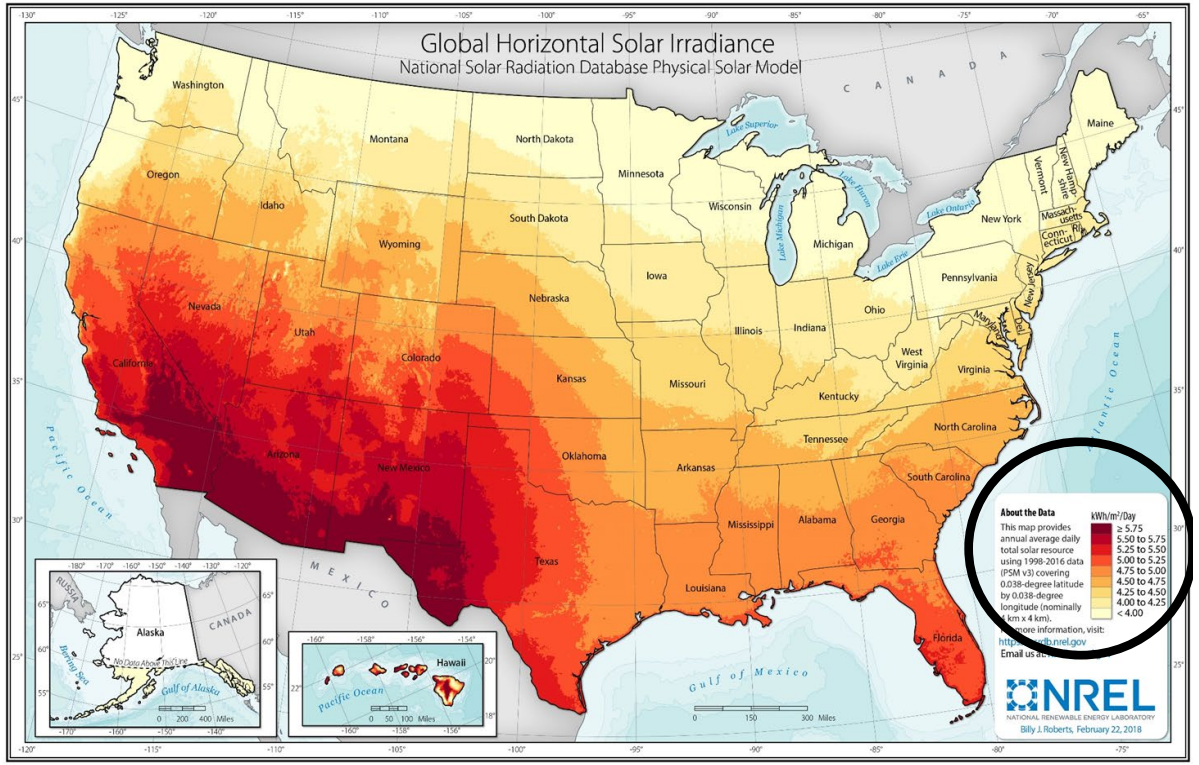
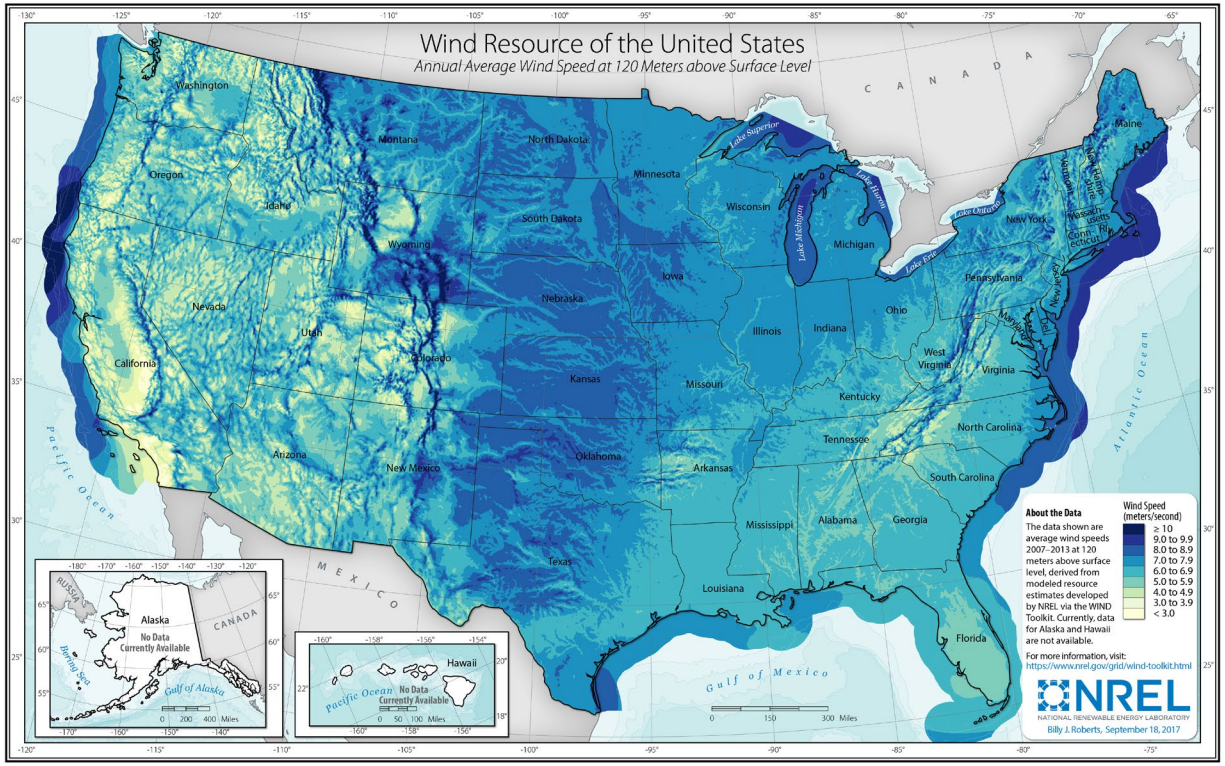
# Solar vs Wind nationally




There are sunnier and windier places. Still, Michigan renewables are effective enough to continue attracting developers & willing utility customers.



Source: https://www.nrel.gov/gis/assets/images/solar-annual-ghi-2018-usa-scale-01.jpg

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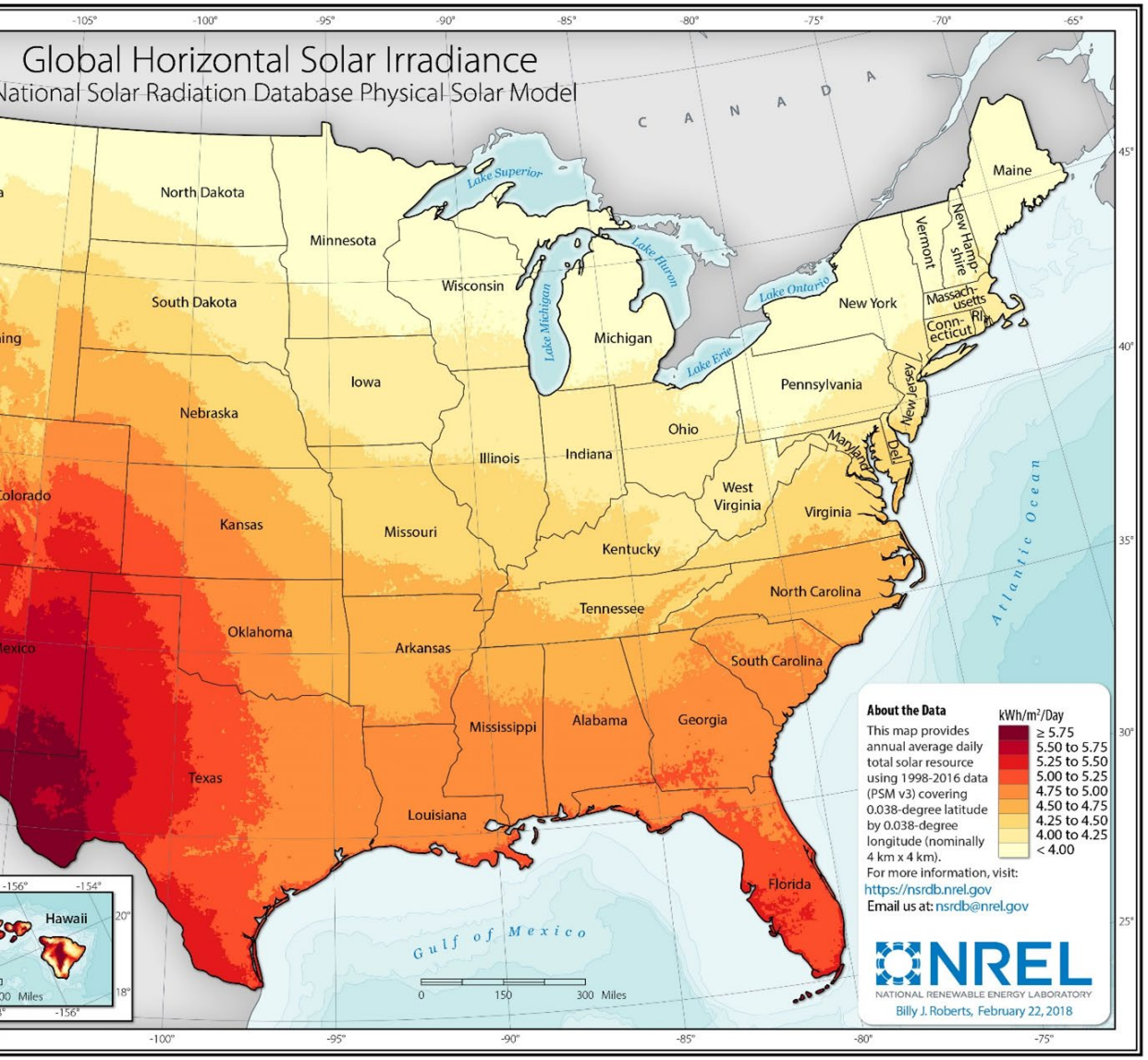


Regardless, this map still isn't good enough for local decision making.



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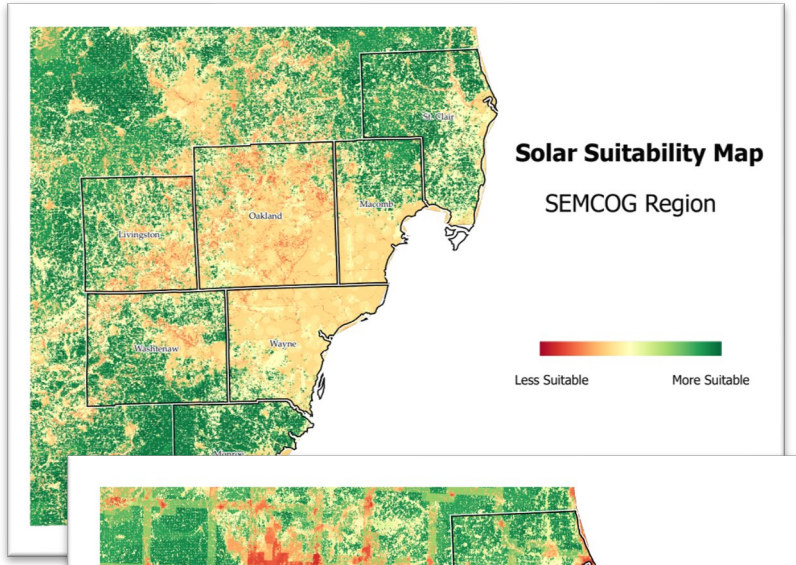
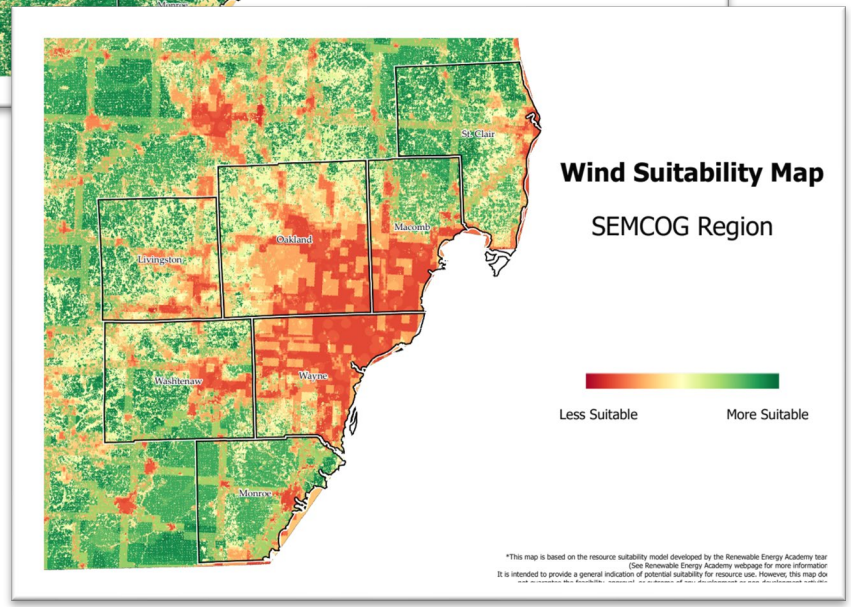
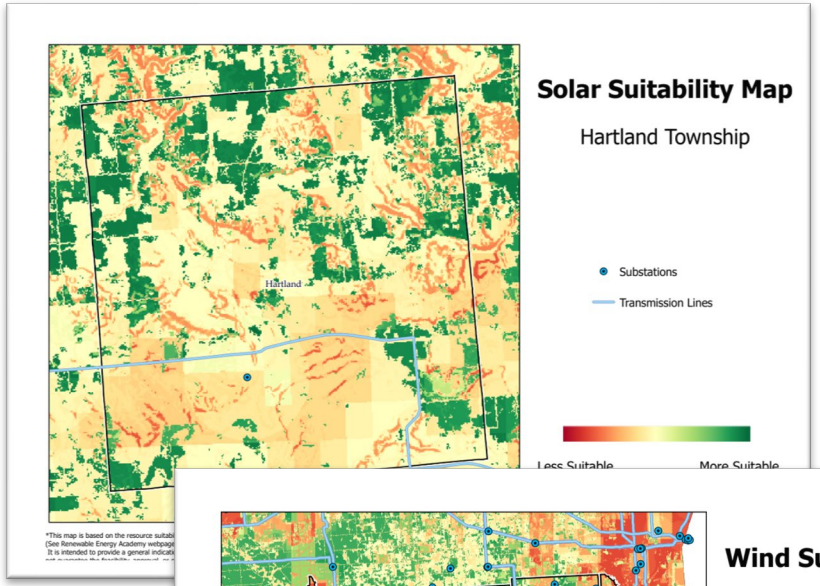
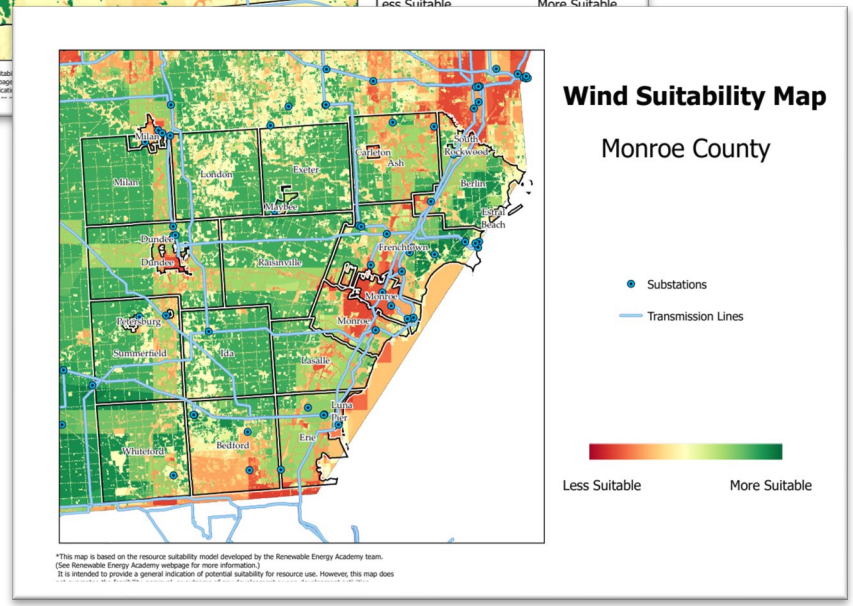
# Methodology of the Model




**Your folder has maps relevant to your municipality!**




Less Suitable — More Suitable

# Methodology of the Model (solar as example)

**Slope**

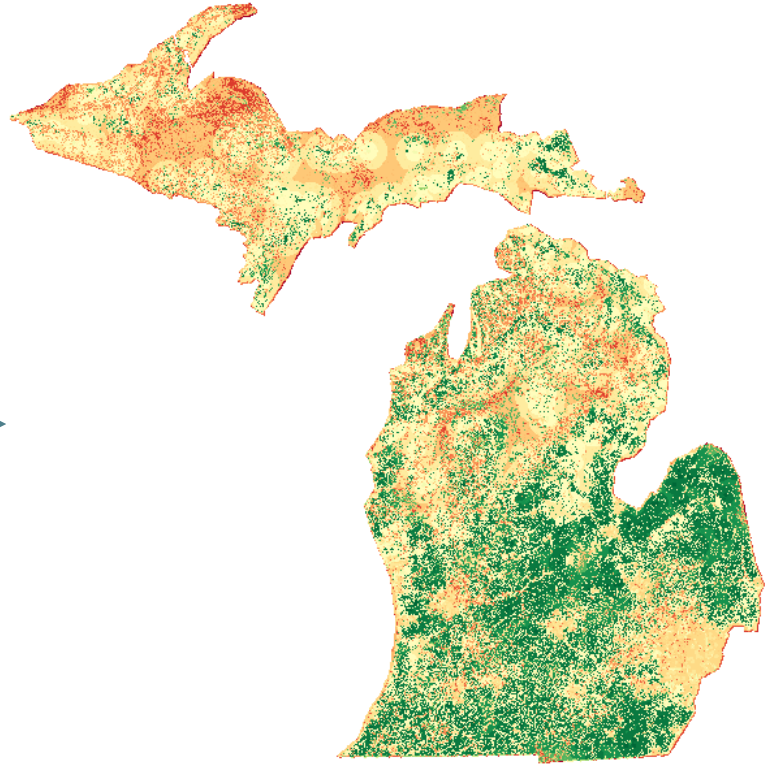
**Land Use Type Score**

| SUITABILITY | RANGE/CLASS |
|---|---|
| 0 | Unclassified (0) |
| 0 | Open Water (11) |
| 0 | Perennial Snow/Ice (12) |
| 0 | Developed, Open Space (21) |
| 0 | Developed, Low Intensity (22) |
| 0 | Developed, Medium Intensity (23) |
| 0 | Developed, High Intensity (24) |
| 50 | Barren Land (31) |
| 0 | Deciduous Forest (41) |
| 0 | Evergreen Forest (42) |
| 0 | Mixed Forest |
| 90 | Shrub/Scrub (52) |
| 100 | Herbaceous (71) |
| 100 | Hay/Pasture (81) |
| 100 | Cultivated Crops (82) |
| 0 | Woody Wetlands (90) |

**Distance to Substations**

**Population Density**

| Parameters | Weight |
|---|---|
| Slope | 2 |
| Land Cover | 4 |
| Population Density | 1 |
| Distance to substation | 3 |
| Solar Potential | 0 |



- More realistic land use scores
- Changed weights
  - Removed “solar potential”



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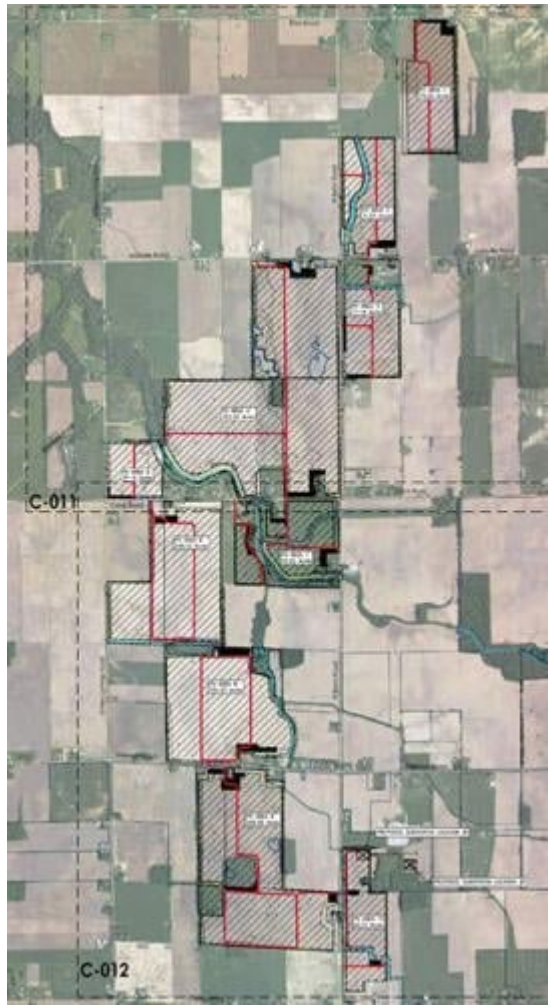
# **Solar:** Introduction

| Avg MW of existing | Total MW existing | Avg MW of proposed | Total MW proposed | Rough average acres per MW |
|---|---|---|---|---|
| 17 | 996 | 160 | 20,152 | 10 |
| 170 acres | 9,960 acres | 1,600 acres | | |

- Likes flat, cleared land that can use generic designs.
- **Economy of scale** is critical. Small patches *cost more.*
- If you're considering one, visit one.




*Biggest in MI: Assembly Solar. 240 MW, 1,200 acres.*



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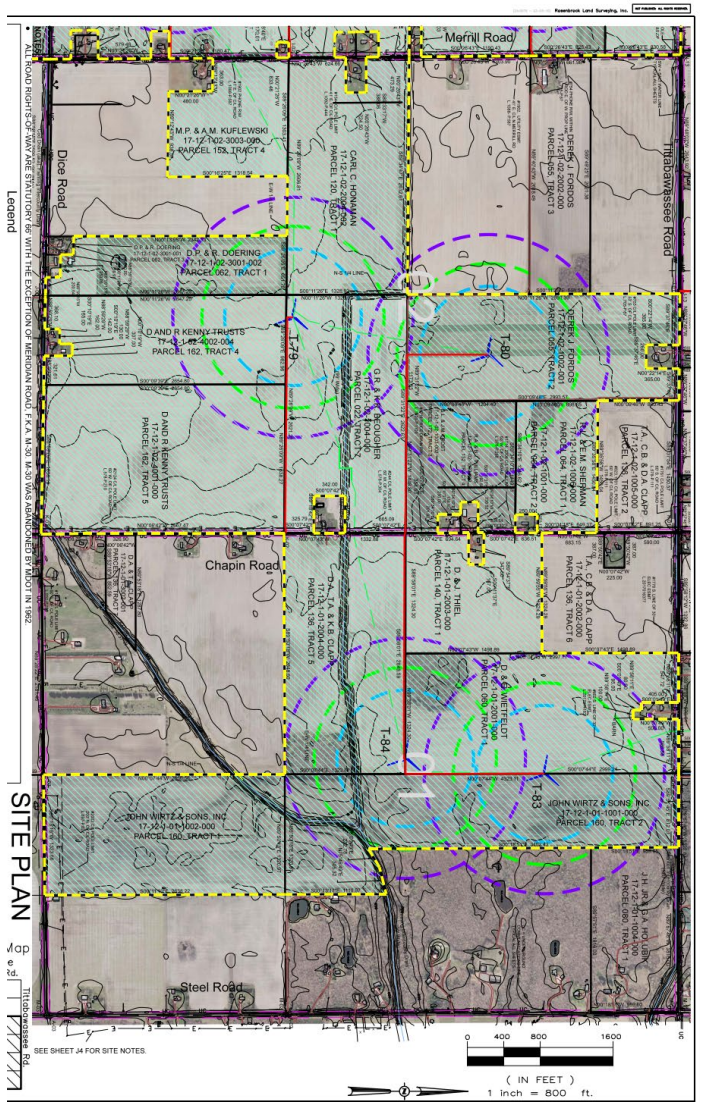
# **Wind:** Introduction

| Avg MW of existing | Total MW existing | Avg MW of proposed | Total MW proposed | Rough average acres per MW |
|---|---|---|---|---|
| 92 | 3,777 | 197 | 2,362 | 0.5 |
| 46 acres | 1,889 acres | 98 acres | | |

- *Actual* vs *Total* footprint.
  - Usually on farmland, but only impacts 0.5 acres per MW.
- Hub height vs. tip height.
  - Avg. hub in US is 340 feet. Proposed is bigger.
- Taller turbines = fewer turbines.
  - Required spacing; greater efficiency.




*4 turbines in one Twp for Meridian Wind.*
*225 MW, 77 Turbines, 1,200 total acres.*



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# **Storage:** Introduction

| Total MW existing | Avg MW of proposed | Total MW proposed | Rough average acres per MW |
|---|---|---|---|
| 1 | 150 | 14,000 | 0.1 |
| | 15 acres | 1,400 acres | |

- Lithium-ion batteries
  - Many kinds of storage, but they're much less urgent
- Versatile siting: Small and modular
- Practically none in Michigan

***137 MW** storage in California.*
*From rwe.com*



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# Potential Revenues to Municipalities

- **Tax Revenue – Industrial Personal Property Tax**
  - For wind, assuming a 30-year lifespan, ~$15k a year per turbine. Tax table changes.
  - For solar, PILT guarantees $7,000 per MW annually.
  - Doesn't all reach *township* level. One non-PILT solar example: $419k total -> $31k to Twp.
- **Renewables Ready Communities Award**
  - Payment for locally permitting and/or hosting: $2,500—$5,000 per megawatt
- **Community Benefits Agreements**
  - Optional sum paid by a developer for the host's betterment.
  - **Required** through State siting at $2,000 per MW.
    - We call this version a "Host Community Agreement" (HCA)



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# Revenue to Landowners

- **Lease or land purchase**
  - "On average, rental payments for the placement of a **single wind turbine lease** can pay landowners up to $8,000 per year." – Landmark Dividend, Wind Turbine Lease Rates, 2017.
  - "Under agreements with private solar developers, farmers can earn rental payments varying from $500 to $2,000 **per acre** per year." - MSU Extension, 2018.
- **Neighbor Payments**
  - Nonparticipating neighbors get a share of revenue
  - Common for wind, upcoming research by UM on prevalence for solar

Next up: A rapid summary of *some* Pros/Cons of the three technologies.

- The Cons covered here are the ones traditionally responded to with zoning – by no means a comprehensive list.

Please hold questions until all 3 are covered.

- Online modules will be posted soon that give a slide on each item.

# Solar

## Local Benefits

- Revenue to municipality and landowners
- Contribute to a domestic energy system
- Low emissions
  - Sustainability goals
  - Lack of localized air pollution
- Opportunity for mixed use
  - Agrivoltaics, Grazing, Pollinator cover
- Jobs
  - Construction vs. Operation

## Local Concerns

- Visual impacts
  - Screening. Can be unsatisfactory.
- Property values
  - Homes within 0.5 miles experience an average home price reduction of 1.5%.
- Sound
  - Inverters sound like a fridge from park edge
- Wildlife migration interruption
- Land use/farmland preservation (covered later)
- End of life & decommissioning
  - Who pays to remove, restore, and recycle?



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# Wind

## Local Benefits

- Revenue to municipality and landowners
  - Does not **replace** farming. Significant boost to farming operations.
  - More likely neighbor agreements
- Contribute to a domestic energy system
- Low emissions
  - Sustainability goals
  - Lack of localized air pollution
- Jobs
  - Construction vs. Operation

## Local Concerns

- Visual Impacts
  - Sightlines, red lights, shadow flicker
- Property values
  - 11% decline within 1 mile. Recovers after 2 years. Homes >2 miles away are unaffected.
- Sound
  - Fridge from 4 football fields away. Should blend with roads.
- Wildlife impacts
  - Can require mitigation. Bird deaths minimal.
- Health & Safety
  - Fire, ice throw, collapse
- End of life & decommissioning



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# Battery Storage

## Local Benefits

- Revenue to municipality and landowners
- Small footprint: More $/acre
- Opportunity for co-siting
  - Increase $/acre of existing sites without taking up much additional land
- Jobs
  - Construction vs. Operation
- Grid resilience
  - Storage fills many gaps of renewables

## Local Concerns

- Visual impacts
- Sound
  - Louder than solar; cooling; persistent
- Environmental impacts
  - No passive impacts; only relevant during incidents
- Fire & explosion risk
  - Incidents are rare & recently safe.
  - Local fire depts should engage in special training.
- Little siting & zoning precedent
  - End of life/decommissioning



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# Question Break

# PA 233

# Act 233 of 2023

Creates an **option** for developers to ask the Michigan Public Service Commission (MPSC) to permit a grid-connected renewable energy project if an affected local unit does not have a "compatible renewable energy ordinance" (CREO), among other triggers.

**This option is not present until Nov. 29th, 2024.**

**Solar Energy:**
50 MW nameplate capacity

**Energy Storage:**
50 MW nameplate capacity with an energy discharge capability of 200+ MWh

**Wind Energy:**
100 MW nameplate capacity

| | |
|---|---|
| 1. | A developer is not **required** to go to MPSC. They may stay local even if there is an "incompatible" ordinance. |
| 2. | Once at permitting, project already has a **voluntary landowner host**. No eminent domain. |

Exception: A city or village is exempt IF the energy facility is located entirely within a city or village, AND IF the city or village is the owner of the participating property, is a developer of the facility, or owns an electric utility that will take service from the energy facility.

# Current MPSC Position

- A lot depends on the Commission: What standards will they set permits to?
- We have *some sense* based on:
  - Workshops with candid conversation and impartial staff
  - "**Draft** Application Instructions and Procedures" released by Staff on June 21st
- Nothing is currently **certain** other than the standards and evaluation criteria outlined in PA 233.
  - Wording with **asterisks** denotes this uncertainty.

# What a project through each pathway looks like:

## Compatible Renewable Energy Ordinance (CREO)

Projects permitted through a PA 233 Sec. 226(8) constrained zoning ordinance and timeline, which are both quite permissive.

Projects will be cheap and easy to build.

## State-Level Certification (MPSC)

Projects permitted by the MPSC, subject to the law and additional conditions* applied by the MPSC.

Projects will have permissive standards but strong due diligence and enforcement.

**INCOMPATIBLE**
Developer *can* call MPSC

## Workable Incompatible Ordinance

Projects permitted through local zoning ordinance. Project depends on specific project context. Will *inherently* make room for renewables, but not like a CREO.

## Unworkable Incompatible Ordinance

Projects subject to township zoning conditions. An unworkable ordinance will *very likely* result in an MPSC project.

# Why “workable” ordinances can work

- State siting gives developers a *backstop* of certainty for difficult cases, but it won’t be the first choice.
  - MPSC siting is more expensive, time intensive, and presumably unpopular, so many developers have expressed preference towards *workable ordinances*.
  - MPSC Staff’s Draft *also* encourages local-level permitting first:

“the local process should be utilized [if] the ALU has workable ordinances or special land use approval processes […] that allow the facilities to be sited.” *



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**Our opinion:** For most developers, CREO will be the top preference for its cheap & quick process… but next is a *workable local ordinance.* Only when an ordinance becomes "unworkable" will a developer seek MPSC certification, which is time-intensive & costly.

Note: This isn't true for all developers and projects.
MPSC certification is still a highly viable option in some cases.

# COMPATIBLE RENEWABLE ENERGY ORDINANCE (CREO)

# Disclaimer on CREOs

- What's a *CREO*?
  - There are differing answers to this question. Each organization may interpret the statute differently.
  - EGLE holds a responsibility to not provide any advice that would place undue risk upon a municipality. Therefore, our definition of a CREO follows a strict interpretation of PA 233.

- The most conservative interpretation is…
  - Provisions that are **no more restrictive** than those outlined in Sec.226(8).
  - Codified into Zoning Ordinance as a Permitted Use in All Zoning Districts.

# 1 CREO Process

*"Each affected local unit(s) of government of a proposed project must have a CREO."*

- PA 233 requires that each *affected local unit of government* (ALU) have these provisions.
- *Affected local unit?* What does this mean?
  - **Literal Interpretation:** All municipalities regardless of overlap and zoning jurisdiction must have a CREO to remain in compliance.
  - **Draft Application Instructions and Procedures: Only jurisdictions with Zoning Authority must have a CREO, not all local units.***



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# 1 CREO Process

If an ALU adopts a CREO, the developer is required to **first** have a project reviewed at the local level.

- However, there is no room for further negotiation or additional provisions beyond the standards of Sec.226(8).



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# 1 CREO Process

Ways to trigger the MPSC process *despite* initially having a CREO:

- The ALU fails to approve or deny the application within the given time frame.
- The ALU denies application that met CREO standards.
- After notifying an applicant that they have a CREO, the ALU amends the ordinance to be more restrictive than CREO standards.
- If for an intermunicipal project, attempts to site the other portion(s) of the project locally has failed, regardless of whether *you* have a CREO.*

# 1 CREO Process

**If any of these violations occur, the project application shifts to the MPSC pathway, the ALU loses intervenor funds paid by developer (up to $75,000), and the ALU may no longer be able to claim CREO status in the future.***

*Exception: ALUs with CREOs in intermunicipal project scenario.*

The MPSC Staff is recommending the Commission not issue the last penalty, as per their Draft Application Instructions and Procedures, **if the ALU amends its ordinance to be compliant with the statute**.*



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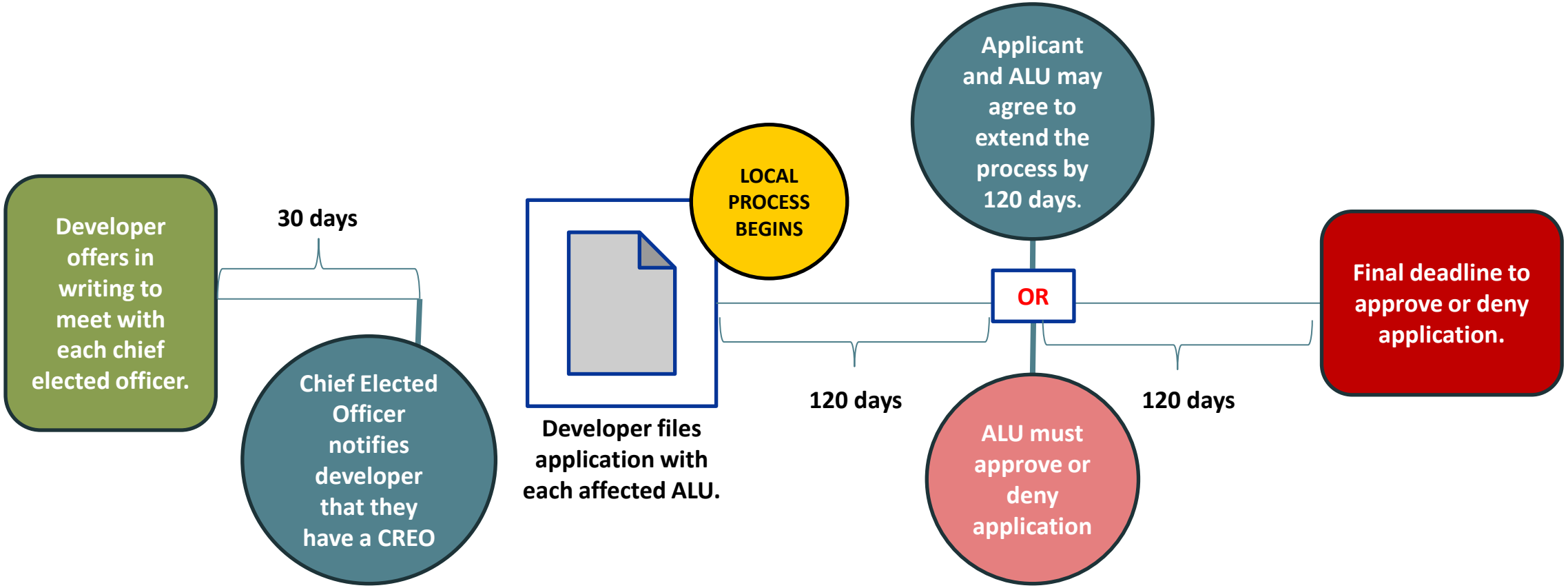
# 1 CREO Process




Construction must begin within 5 years of the permitting date or the conclusion of subsequent challenges to the permit.



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# STATE-LEVEL CERTIFICATION (MPSC)

# 2 State-level certification (MPSC)

**MPSC's Standards and Requirements:**

1. Sec. 226(8) provisions
2. Additional PA 233 Requirements
3. Evaluation Criteria (Sec. 226(6-7)) and Required Application Materials (Sec.225)
4. MPSC Imposed Conditions (Draft Application Instructions and Procedures)*

# 2 State-level certification (MPSC)

## MPSC Evaluation Criteria (Sec.226(6))

Considerations:

- Public Benefits
- State and Federal Environmental Compliance
- Considered and addressed impacts to environment and natural resources
  - Sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species.
- Impact to farmland and public health and safety
  - Feasible alternatives, ground cover, pollinator habitat, community improvements, etc.



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# 2 State-level certification (MPSC)

**MPSC Imposed Conditions (Draft Application Instructions and Procedures)***

## Solar Energy

**CREO**
- Setbacks
- Sound
- Height
- Fencing
- Lighting

**Screening***
**Vegetative Ground Cover***
**Underground Facilities***
**Sound Study + Compliance***

## Wind Energy

**CREO**
- Setbacks
- Sound
- Height
- Shadow Flicker
- Radar Interference
- Lighting

**Regular Reporting of Electricity Produced***
**Sound Study + Compliance***
**Shadow Flicker Study + Compliance***
**Pre-Construction Reception Study***
**Restoration of any Lost Reception Levels***

## Energy Storage

**CREO**
- Setbacks
- Sound
- NFPA 855 Compliance
- Lighting

**Sound Study + Compliance***
**Annual BESS Training***

# 2 State-level certification (MPSC)

**MPSC Community Benefits and Project Requirements:**

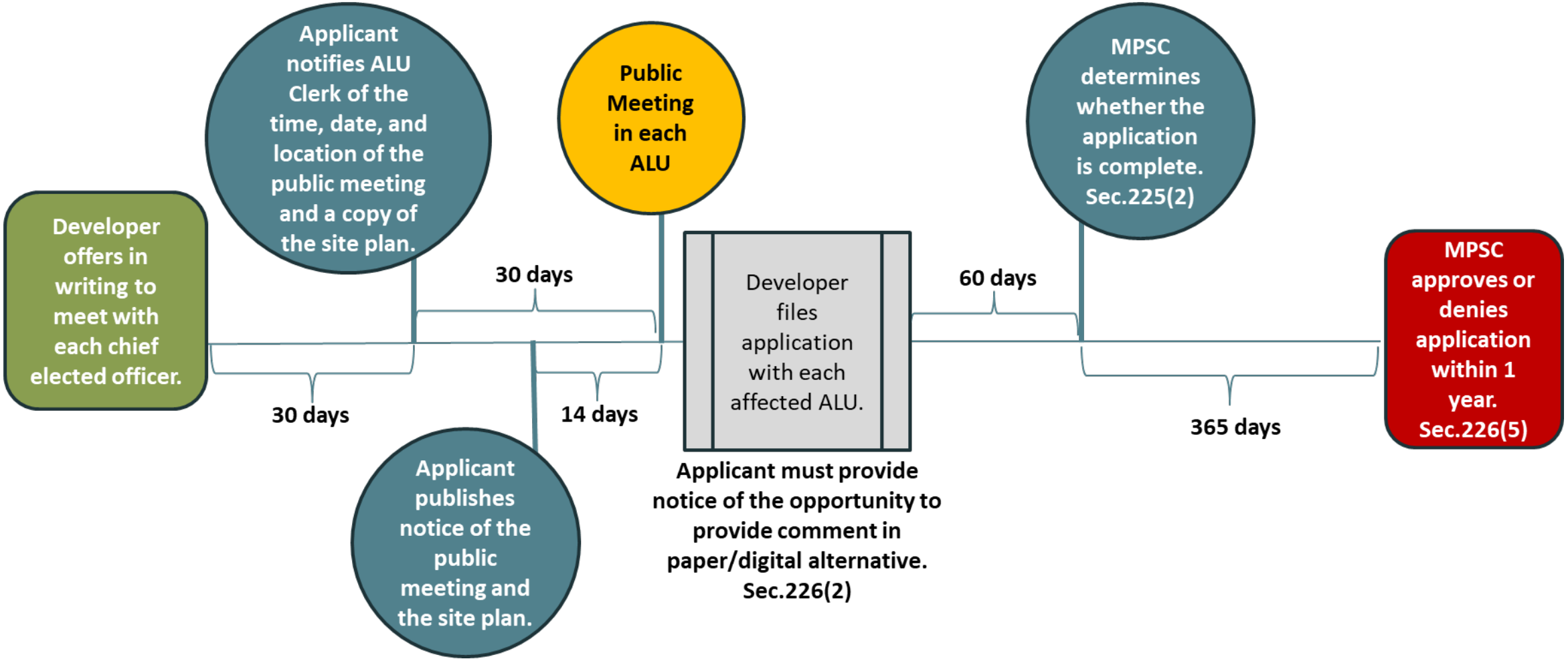
- *Developer pays* up to $75,000 to each ALU for intervenor's fund with no more than $150,000 in total for the project.
  - ALU, participating property owner, or non-participating property owner may intervene by right.
- *Developer pays* $2,000 per MW to each ALU for Host Community Agreement (HCA)

**All in all, these costs (including how long it takes) make the MPSC route potentially less attractive to developers.**



***Still uncertainty around the definition of "each ALU" as it relates to who all the developer needs to provide intervenor funds to.**

# 2 State-level certification (MPSC)



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# INCOMPATIBLE ORDINANCES

## 3 Workable, Incompatible

- Any incompatible ordinance is one that doesn't satisfy the definition of CREO in some way.
- A **workable incompatible ordinance (WIO)** is a local zoning ordinance that regulates these projects in a way that would still be "workable" to appease a developer's economic bottom line. A "workable" ordinance is ideally made with legal advice or in conversation with a developer.

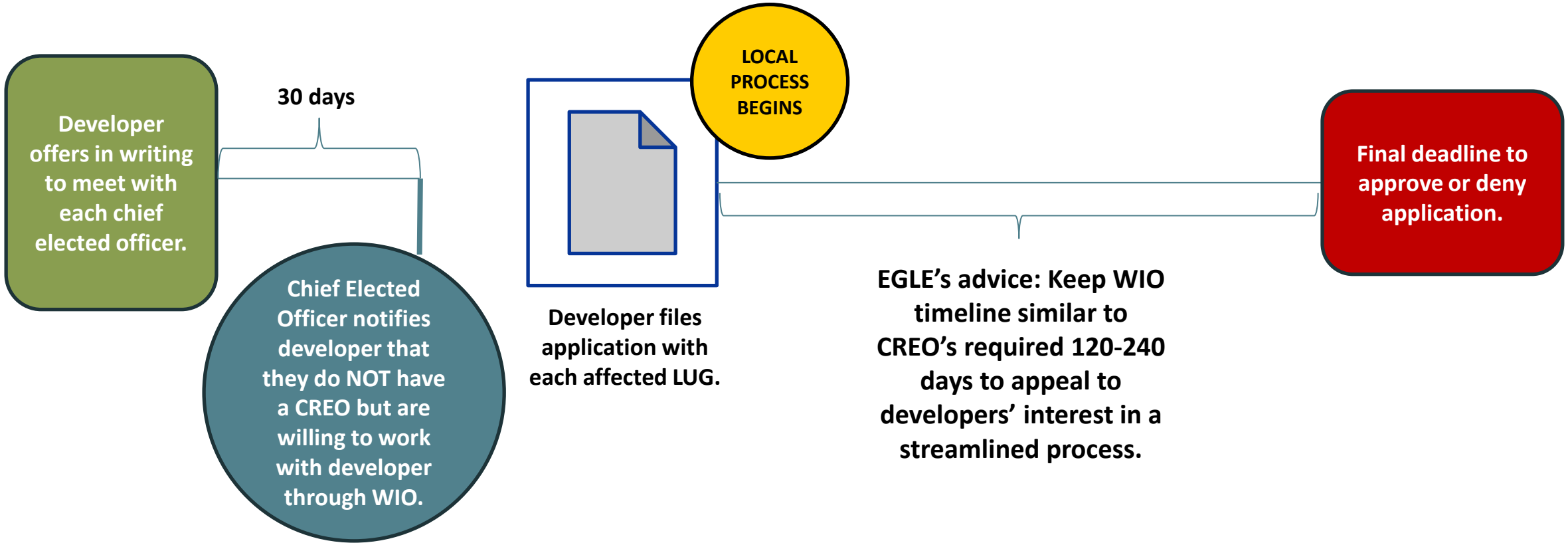
## 4 Unworkable, Incompatible

- An **unworkable incompatible ordinance** is a local zoning ordinance that regulates these projects in a way that would NOT be "workable" to appease a developer's economic bottom line.
  - This means that a developer would very likely seek the MPSC's siting route due to the restrictiveness of the local ordinance.
  - May have additional downsides discussed later.

# 3 Workable, Incompatible

- How do we know what those standards are?
  - If you already have a proposed project, talk with the developer.
  - Refer to sample planning and zoning guidebooks.
  - Look to research/data available on past projects.
  - Consult renewable energy planning and zoning experts.

# 3 Workable, Incompatible



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# 4 Example Pathways

1. CREO
2. MPSC
3. Workable Incompatible
4. Unworkable Incompatible

For each: *Why, Why Not, and How.*



**EGLE is not providing any legal advice through this presentation. The municipality should consult with legal counsel about any zoning decision.**

# Why

**INCOMPATIBLE**
Developer *can* call MPSC

## CREO

- Interested in hosting renewables; want to be first in line.
- Guarantees that the *process* stays local, albeit performatively.
  - Still risk for cross-jurisdiction projects.
- Minimal municipal workload.
- RRCA.

## MPSC

- Comfortable with the MPSC's process and conditions.
- Low municipal workload.
- Host Community Agreement and intervenor funds.
- Passes accountability to the State.

## Workable

- More zoning preferences than CREO; still makes room for renewables.
- If conversations are flexible and in good faith, unlikely for a developer to call MPSC.
- Maintains local process and RRCA.

## Unworkable

- Expresses *all* community preferences.
- Lower workload than "Workable."
- Likely receives all MPSC path Why/Why Nots.



**EGLE is not providing any legal advice through this presentation. The municipality should consult with legal counsel about any zoning decision.**

# Why Not

## CREO

- Cannot add more preferences. Denying a compatible project voids CREO.
- Penalties for “false CREO.”
- Depends on neighbors.

## MPSC

- Cannot add more preferences.
- Strong MPSC conditions are only *draft,* and no case precedent yet.
- No RRCA.
- No local process.

**INCOMPATIBLE**
Developer *can* call MPSC

## Workable

- Requires well-informed ordinance **soon**.
- Context dependency means more work in the future.
- Risk of being called incompatible.

## Unworkable

- High risk of losing local process and shifting to MPSC, incurring those “Why nots.”
- May turn away local-oriented developers.



**EGLE is not providing any legal advice through this presentation. The municipality should consult with legal counsel about any zoning decision.**

# How

## CREO

- Pass a zoning ordinance no more restrictive than the standards laid out in Sec. 226(8) of PA 233.

(The most conservative interpretation of a CREO)

## MPSC

- Don't pass or update your ordinance.
- Tell developer you do *not* have a CREO and want them to go to the MPSC.

**INCOMPATIBLE**
Developer *can* call MPSC

## Workable

- Start with MPSC process; add and/or trim to workability with local priorities.
- Pass well-informed ordinance & show willingness to converse.
- Don't claim compatibility and prepare to amend.

## Unworkable

- Pass or maintain the incompatible ordinance.
- Say you do not have a CREO and have no intent of amending the ordinance further.
- Formally request that a developer permit the project locally.



****EGLE is not providing any legal advice through this presentation. The municipality should consult with legal counsel about any zoning decision.****

# WORKABILITY

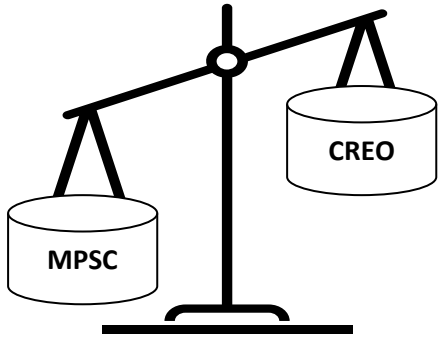


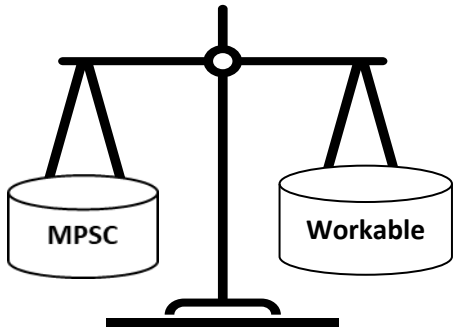
**EGLE and the presenters are not providing any legal advice through this presentation. Every municipality should consult with legal counsel about any zoning decision.**

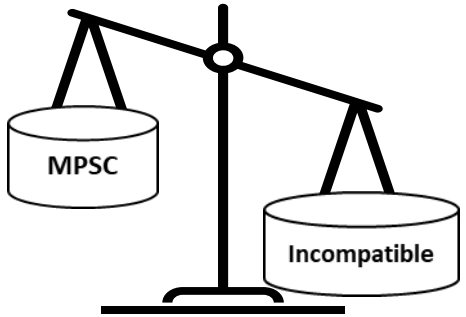
# Workability is a Balance

To create a balanced, workable ordinance that works for a developer *and* your community:

- **Starting from the MPSC's Standards, Conditions, and Process:**
  - Rank the standards and conditions in order of importance to your community
  - Identify the zoning item(s) you would change to reflect more of your community's preferences
    - Consult with municipal attorney, planning professionals, and available data
  - Identify the standards and conditions you'd be willing to give up/soften
    - This frees up some wiggle room for community preferences while maintaining balance



# Guidance on what's worked before

plan by the Planning Commission in the A-1, A-1½, A-2, M-1, and M-2 districts. An application for special use permit and final site plan shall contain information required pursuant to Article 12 for special use permit approval, Article 14 for final site plan approval, and other information as required in this section and in this Ordinance.

3. General Standards. The following standards shall apply to all Private and Commercial SES unless otherwise specifically noted:

A. Design Safety Certification. The safety of the design of all private and commercial SES shall be certified by a Professional Engineer acceptable to the Zoning Administrator. The standard for certification shall be included with the application for development.

B. Electrical and Building Codes. All electrical compartments, storage facilities, wire conduit, interconnections with utility companies and interconnections with private structures will conform to national and local electrical codes. All SES shall comply with local building permit requirements.

C. Compliance with County Ordinances. Private and commercial SES shall be in compliance with all Ordinance requirements and other applicable ordinances, rules and regulations.

D. Setbacks. All Photovoltaic (PV) systems and support structures associated with such facilities (excluding perimeter fencing) shall be setback a minimum of forty (40) feet from a side or rear property line and a minimum of fifty (50) feet from any road right-of-way.

E. Height. All PV systems and support structures associated with such facilities shall be restricted to a maximum height of sixteen (16) feet when oriented at maximum tilt, except for rooftop and building mounted solar systems which rely upon Section 5.6.1 of the Ordinance for height permitting standards.

F. Installation Certification. The Professional Engineer shall certify that the construction and

Example of Assembly Solar

Past Workable Ordinances

File Edit View Insert Format Data Tools Extensions Help

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | | | https://www.canr.msu.edu/resources/planning-zoning-for-solar-energy-sys | https://energyzoning.org/sites/default/files/PDF/2602517880_ConvisTow | https://energyzoning.org/sites/default/files/PDF/26155_Shiawassee_Cou | https://drive.google.com/file/d/18k3KEXag1WW3ZF3pruMB1netSIUlyh0c | https://energyzoning.org/sites/default/files/PDF/2606504240_Aurelius%2 |
| 2 | Category | PA 233 | Sample Zoning | Convis Township | Shiawassee County | Adrian Township | Aurelius Township |
| 3 | Setbacks | The following minimum **setback** distances, measured from the nearest edge of the perimeter fencing of the facility:<br>Occupied community buildings and dwellings on nonparticipating properties: 300 feet from the nearest point on the outer wall<br>Public road right-of-way: 50 feet measured from the nearest edge of a public road right-of-way<br>Nonparticipating property lines: 50 feet measured from the nearest shared property line | Setback distance shall be measured from the property line or road right-of-way to the closest point of the solar array at minimum tilt or any SES components and as follows:<br>a. In accordance with the setbacks for principal buildings or structures for the zoning district of the project site [or __ [e.g. 50] feet from the property line of a non-participating lot].<br>b. __ [e.g., 100] feet from any existing dwelling unit on a non-participating lot.<br>c. A Ground-Mounted SES is not subject to property line setbacks for common property lines of two or more participating lots, except road right-of-way setbacks shall apply. | | All PV systems and support structures associated with such facilities (exclusing perimeter fencing) shall be setback a minimum of 40 feet from a side or rear property line and minimum of 50 feet from any road right-of-way. | Solar Farm facilities and related structures and components shall be set back a minimum of thirty feet (30) from all lot line. In addition, Solar Farm solar arrays and other structures must be located at least three hundred (300) feet from the road right-of-way along M-52; one hundred fifty (150) feet from the road right-of-way along all other roadways, public and private; and one hundred fifty (150) feet from any lot line adjacent to all existing Residential (R), Urban Residential (R-1), and Multiple-Family Residential (R-2) District land and any lot line adjacent to an existing residence at the time the Solar Farm is granted conditional use approval, unless the zoning lot is comprised of a portion of the lot containing the residence. Additional setbacks may be required to mitigate noise and glare impacts, or to provide for designated road or utility corridors, as identified through the review process. | All photovoltaic solar panels and support structures associated with such commercial SES/solar farm (excluding perimeter security fencing) shall be a minimum of 40 feet from a side or rear property line, and a minimum of 50 feet from any road right-of-way. |
| 4 | Sound | The solar energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute. | The sound pressure level of a large principal-use SES and all ancillary solar equipment shall not exceed __ [e.g. 45] dBA (Leq (1-hour)) at the property line of an adjoining non-participating lot. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard. | | The noise generated from an SES shall not exceed forty (40) dB(A) at the exterior of any habitable structure, also measured at the closest property line to the SES. This sound pressure level may be exceeded during short-term events such as utility shortages or severe wind storm. If the ambient sound pressure level exceeds forty (40) dB(A), the standard shall be the ambient dB(A) plus five (5) dB(A). | No component of any Solar Farm shall produce noise that exceeds any of the following limitations. Adequate setbacks shall be provided to comply with these limitations.<br>(1) Fifty (50) dBA, as measured at the property line of any adjacent Residential (R.), Urban Residential (R-1), and Multiple-Family Residential (R-2) District zoned land in existence at the time the Solar Farm is granted conditional use approval | The sound-noise generated from a Commercial SES shall not exceed 40 dB(A) at the exterior of any habitable structure, also measured at the closest property line to the SES. This sound pressure level may be exceeded during short-term events such as utility shortages or severe wind storm. If the ambient sound pressure level exceeds 40 dB(A), the standard shall be the ambient dB(A) plus five dBA. |

Solar Ordinance Text | Wind Ordinance Text | Solar Projects Studied | Wind Projects Studied | Methodology and Disclaimers

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



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# Solar Sound

| CREO | MPSC | Workable | Unworkable |
|---|---|---|---|
| NP Structure:<br>55 dBA Leq (1-hour) | NP Structure:<br>55 dBA Leq (1-hour)<br>+<br>**Conditions of Approval**:<br>Sound Modeling Study and Demonstrated Compliance | NP Property Line:<br>Range between Ambient + 5 dBA Leq and 60 dBA LMax | NP Property Line:<br>Below 45 dBA LMax |



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# Strategy 1: Fine-tuning a CREO item

- Sound as an example:
  - **Reading type**: *LMax* only must be exceeded once. *Leq* averages over a period (more wiggle room)
  - **Measurement location:** An ear at property line *or* inhabited structure
  - **Decibel amount:** Measurement location is much more important

| Source | CREO | Past Projects (rough avg.) |
|---|---|---|
| Nearest property line | - | 40-60 dBA Max |
| Inhabited structure | NP: 55 dBA Leq (1 hour) | - |

- Sec.226(8) solar sound has three permissive elements: average, structure, non-participating only
- Changing CREO items is a balancing act, e.g., keeping Leq may gain leniency elsewhere



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# Solar Screening

| CREO | MPSC | Workable | Unworkable |
|---|---|---|---|
| | **Condition of Approval**: Agreement to implement screening, approved case-by-case by Commission | **Types of screening:** Landscaping or Privacy Fencing<br><br>*Examples:*<br>*Standards of underlying zoning district, if inadequate then PC may require along NP residential uses;*<br>*or MSU-E/UM sample zoning guidebook* | **Types of screening:** Landscaping and Privacy Fencing, or Berming<br><br>*Example:*<br>*Multiple rows of trees at mature height all around project* |



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# Strategy 2: “Mirroring” an MPSC item

- Screening as an example:
  - Could be a condition of approval by the MPSC, but is **not** required in a Sec.226(8) CREO

- Imagine you have a base CREO and add *just* screening
  - If developer finds ordinance unworkable due to this item, they go to the MPSC . . . which subjects them to this same screening standard and more

- Screening *alone* should be “workable,” but it’s still part of the overall balance



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# Solar Location Control

| CREO | MPSC | Workable | Unworkable |
|---|---|---|---|
| **All districts** | **All districts +**<br>**Evaluation Criteria:**<br>1. Will not unreasonably diminish prime farmland<br>2. Shall consider feasible alternative development locations<br>3. Shall consider impact on local land use, including % of land dedicated to energy generation | **! Districting !**<br>**! Lot minimums !**<br><br>Implemented in a way that still provides ample and suitable land for renewable development + large patch size + access to transmission/substation is considered | **! Overlays !**<br>**! Districting !**<br>**! Lot Maximums !**<br><br>Implemented in a way that does not provide ample and suitable land for renewable development |



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# Strategy 3: Pay extra attention to "Dealbreaker" zoning items

- Location control as an example:
  - Adding an item to your ordinance that is not considered in a CREO or the state's process invites a higher risk of triggering unworkability

- **Districting**: Specify the zoning district that large renewables can/can't go in

- **Overlays**: Your ordinance says that projects are permitted in an Overlay District, which itself can be placed to exclude certain priority areas

- But – our interpretation of a CREO: "*By right in all districts*"
  - This might break workability outright, unlike fine-tuning of sound/setbacks
  - **Especially problematic when a developer already identified project location**



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# Timeline

| CREO | MPSC | Workable | Unworkable |
| --- | --- | --- | --- |
| 120 - 240 days | 365 days | Streamlined by resolution (less than 365 days; the closer to CREO the better, ex.: 240 days) | No time limit |



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# Strategy 4: Get yourself easy wiggle room

- Timeline as an example:
  - Cutting cost to developer that are imposed through MPSC process

- Time is money
  - **Review Process Timeline**
    - **MPSC** = 365 days
    - **CREO =** 120-240 days

- Other examples include:
  - Alternative locations analysis, MPSC's Application Filing Requirements that you can live without, proof of consultation with other agencies, …


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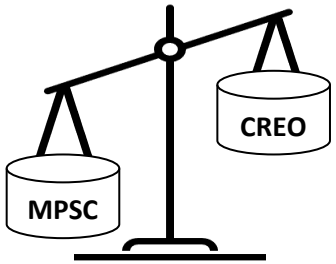
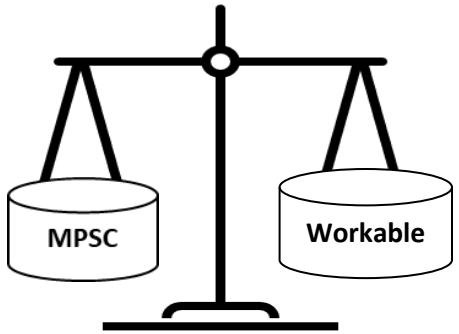
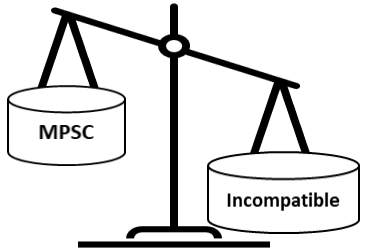
# Workability is a Balance



# LUNCH

Afternoon session resumes at 12:45 pm



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# Workability Part 2: Planning & Community Goals

# Where does planning fit in all of this?

- The role of planning in PA 233
  - PA 233 does not require applicants to refer to local master plan or zoning districts
    - The specific role of planning for utility-scale systems **– ? (silent)**
    - Planning's role for systems *below* PA 233 thresholds **– yes!**
    - Potential role for plans in MPSC permitting process **– tbd!**

- Proactive vs. reactive zoning ordinance amendments
  - Different terms upon which you'd write a workable ordinance
  - Ordinance changes without planning??

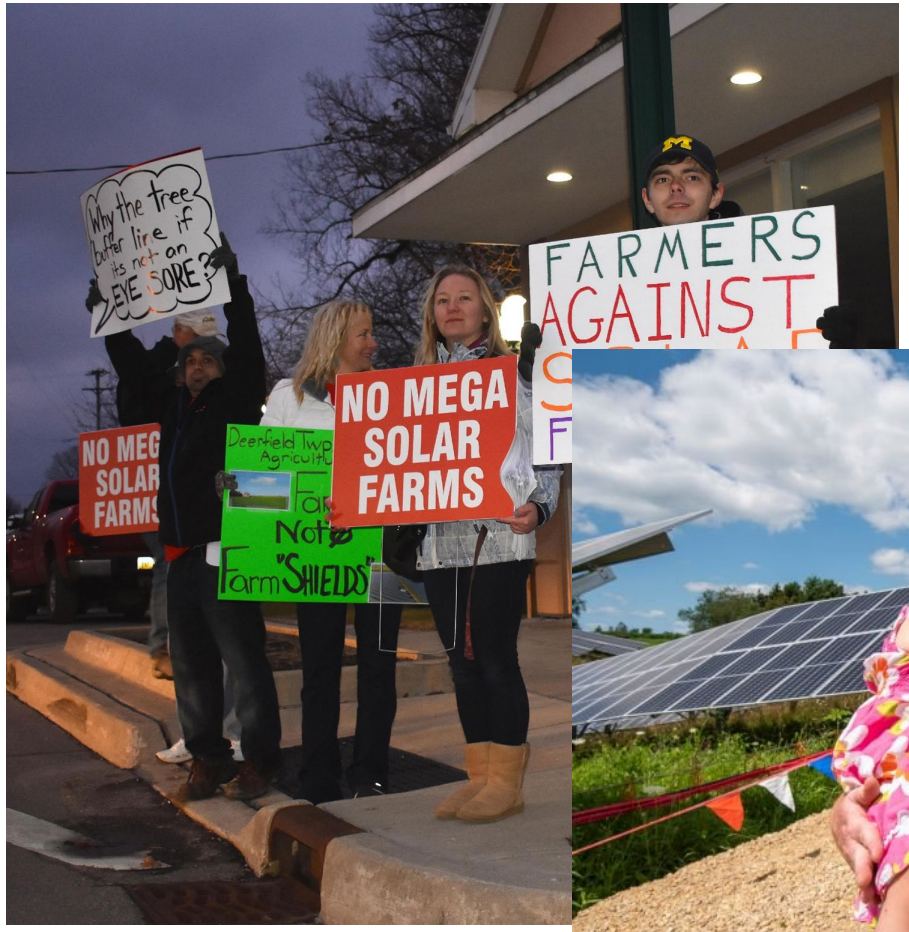
- When thinking about workability, don't run afoul of the Michigan Zoning Enabling Act
  - What does your community desire in relation to what existing/established goals are?

# Fit with common planning goals

| Typical Principles and/or Goals | Wind | Solar | Energy Storage |
|---|---|---|---|
| Mixed-Use (density, walkability); Enhance Existing Neighborhoods | No | No | No |
| Tourism Development (viewsheds, outdoor recreation) | No | Yes/No | Yes |
| Natural Resource (Open Space) Protection (community-wide) | No | No | Yes |
| Natural Feature Protection (onsite) | No | No | No |
| Historic Preservation | No | No | No |
| Sustainability; Resiliency; Energy Waste Reduction; Green Buildings | Yes | Yes | Yes |
| Economic Diversification (job creation) | Yes | Yes | Yes/No |
| Farmland Preservation (conventional definition) | Yes | No | Yes |
| Farm Viability | Yes | Yes | Yes |
| Rural character | Yes/No | No | Yes/No |

# "Farmland preservation"
# What are you trying to preserve?

- **Urban boundary**
- **Rural vista**
- **Habitat**
- **Land for growing food**
- **Farm livelihoods**



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# Example goals & zoning levers

- Rural character
  - Sound, setbacks, screening?
- Tourism development
  - Screening, height of panels, location control?
- Farmland preservation (conventional definition)
  - Decommissioning, location requirements?



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# Planning, community engagement, memos

- Identify top community concerns and priorities to inform a workable ordinance
  - Mapping: local suitability for solar/wind (EGLE)
  - Community engagement

- "Rezoning justification memo"
  - For the ordinance decisions you make, link intentions to master plan goals

- Consider energy-generating land uses in the context of existing goals
  - Early conversations about tensions between goals/zoning items helpful (either way)



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# So… what should communities do next?

We won't know how any of this will truly play out until there is case precedent. We need to see what projects the MPSC says yes and no to, and how developers respond to denials. Until then…

- **Start thinking as a community what your zoning priorities are for renewable energy**
  - For multi-jurisdictional projects, less reason to adopt a CREO if your neighbors aren't
  - If you choose a path that requires amending your zoning ordinance (CREO or "Workable"), start moving quickly on those amendments
  - If you are still leaning towards an "Unworkable" ordinance, sincerely consider exploring how to harness benefits and minimize priority impacts with a **workable ordinance**

# Question Break

# WORKSHOP ACTIVITY

# ACTIVITY

Please sit with all members of your municipality.

After instructions, send one member up to pick up a set of cards. The rest of your materials are in the handout folder.

Please return your materials afterwards!

After the activity: Group report-out, closing remarks, then office hours.

# REA Workshop Activity

| | |
|---|---|
| **CREO PA 233 Standards** | **PA 233 Standards + MPSC Conditions of Approval*** |
| **Workable Incompatible Standards** | **Unworkable Incompatible Standards** |



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# REA Workshop Activity: Instructions

1. Craft your Dream Ordinance.
2. Exercise the balancing act of workability:
   1. Identify your favorite items.
   2. Identify any dealbreaker or unworkable cards.
   3. Identify what you'd be willing to give up to keep your favorite items!
   4. **In general, try to remove as much as red as possible!**
3. Review Recommended Homework



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# Activity Game Plan

1. Pick up a set of cards – **ONE PER MUNICIPALITY**.
2. Play the card game for **20 minutes**.
3. **When you hear the gong, stop playing the game and prepare for the group report out!**
4. Activity Report Out

# REA Workshop Activity

20 Minutes



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# Activity Report Out

Any thoughts:

What was your main takeaway of the card game?

What pathway is your municipality leaning towards?

# Closing Remarks

- Exit survey is on the back of your agendas.
- Please fill this out individually and leave at your table!
- Office hours for 1 hour from 2 - 3pm.

# Complete List of Resources

- PA 233 (HOUSE BILL No. 5120 of 2023)
- UM Center for EmPowering Communities' PA 233 Resources Webpage
- MPSC Siting Workshops
- MPSC Straw Proposal
- MPSC Draft Application Instructions
- MTA CREO & Application Fee Escrow documents (Members only)

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- Renewables Ready Communities Award
- Renewable Energy Academy Webpage
- Michigan Zoning Database
- UM + MSU Solar Guidebook + MSU Wind Guidebook + UM Storage Guidebook



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# Renewable Energy Academy

**For any questions regarding the REA or RRCA, please contact:**

- Zona Martin | MartinZ2@Michigan.gov
- Ian O'Leary | Olearyi@Michigan.gov
- Yingxin Wang | WangY3@Michigan.gov

# Center for EmPowering Communities

- Madeleine Krol - krol@umich.edu

- **Browse our resources on PA 233:**
  - FAQs
  - Sample CREO zoning ordinance
  - Past "workable" ordinance data
  - Annotated zoning guides

- Michigan Zoning Database

- **Eventual update of solar, wind guidebooks**
  - **Storage guidebook on the way!**
  - UM + MSU Solar Guidebook
  - MSU Wind Guidebook

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# REA Partner Organizations

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# Thank you for coming!



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