



Playing Your Cards Right: Navigating Permitting for Large Renewables

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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

EGLE → Energy Services Unit

- Zoning analysts with technical assistance backgrounds.
 - Not involved with development of PA 233
- Position is that local zoning is still effective & necessary.
 - Decision on how to apply this information is yours.



Where we've held "Renewable Energy Academy" PA 233 Workshops

Renewables Ready Communities Award (RRCA)



The RRCA provides up to \$5,000/MW to permittees 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.

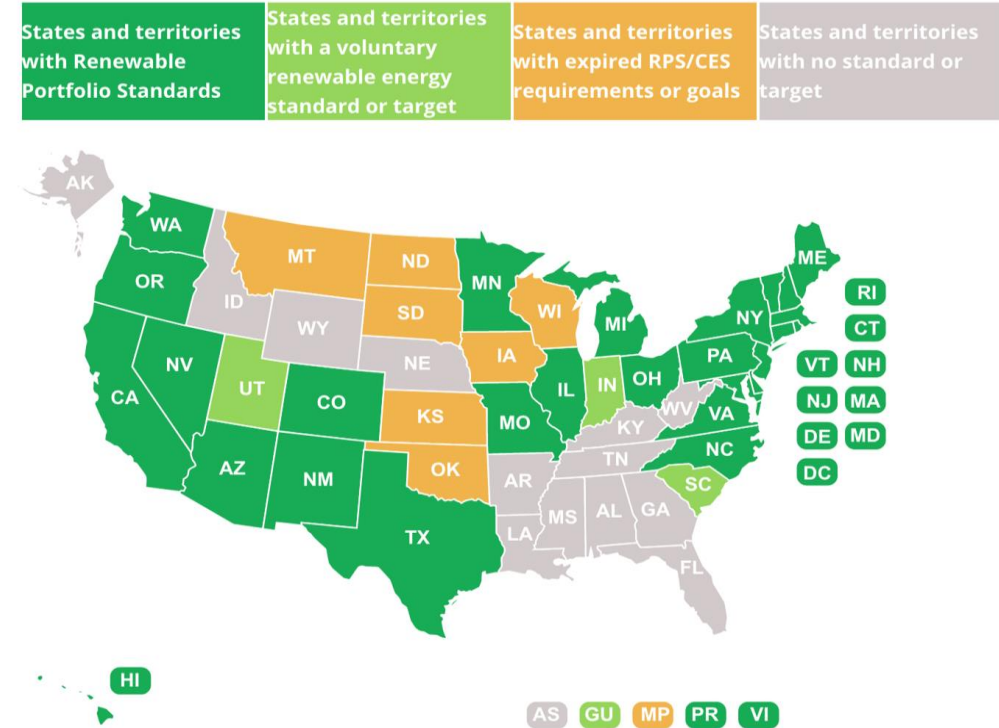
PA 233 requires developers to *pay communities* for State siting (\$2k/MW). Pre-RRCA, this could have disincentivized communities from updating their ordinances. A grant from the State for *local* permitting ensures a municipality gets extra revenue down either path, and emphasizes a more win-win route for developers/local governments.

The Scope

Our goal is to help communities know their options in the new renewable energy siting landscape: **PA 233** and a Renewable Portfolio Standard (**RPS**) of 50% by 2030.

Bigger picture of renewables is out of scope.

- Taking policies *as is*. Discussing them is a valid conversation, but for a different occasion.
- Active appeal against PA 233 by ~80 jurisdictions
 - MPSC process will continue until court decision.



From Clearpath Energy, 2022

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 present as of Nov. 29th, 2024.

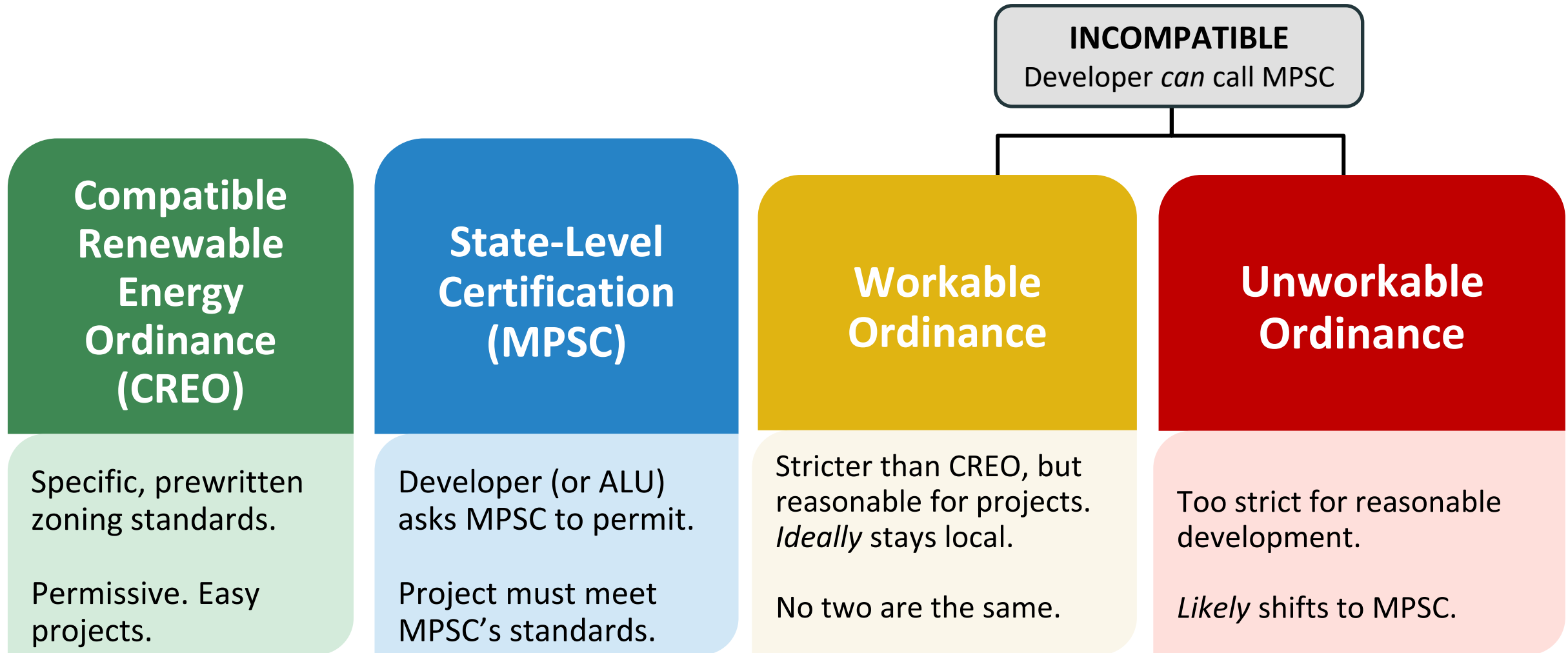
Solar Energy:
50 MW nameplate
capacity

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.
3. **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 EITHER is the owner of the participating property, OR is a developer of the facility, OR owns an electric utility that will take service from the energy facility.

4 Permitting Pathways - Preview



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 is not green-lighting projects. Application requirements and staff recommendations will impose some thorough siting requirements on developers.
- As such, MPSC siting is expensive, time intensive, and unpopular, so many developers have expressed preference towards *workable ordinances*.

For most developers, CREO will be the top preference for its cheap & quick process... but next is a *workable local ordinance*, not MPSC.

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.

What does a CREO cover? The “floor” of a workable ordinance

Solar Energy

CREO {
Setbacks
Sound
Height
Fencing
Lighting

Wind Energy

CREO {
Setbacks
Sound
Height
Shadow Flicker
Radar Interference
Lighting

Energy Storage

CREO {
Setbacks
Sound
NFPA 855 Compliance
Lighting

- Our conservative interpretation is that anything more than this is incompatible
 - We think this helps local govts avoid “false CREO” penalties
- The numbers themselves are usually quite permissive; check the act itself

What does the MPSC Cover?

The “ceiling” of a workable ordinance

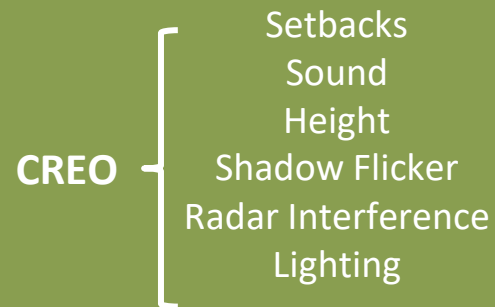
MPSC Imposed Conditions (Application Instructions and Procedures)

Solar Energy



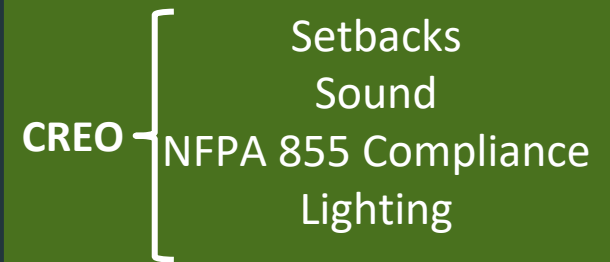
- Screening
- Vegetative Ground Cover
- Underground Facilities
- Sound Study + Compliance
- Pre-Operation Emergency Response Training + Ongoing upon request

Wind Energy



- Regular Reporting of Electricity Produced
- Sound Study + Compliance
- Shadow Flicker Study + Compliance
- Pre-Construction Reception Study + Restoration of any Lost Reception Level
- Pre-Operation Emergency Response Training + Ongoing upon Request

Energy Storage



- Sound Study + Compliance
- Annual BESS Emergency Response Training

Additionally through MPSC:

MPSC Community Benefits and Project Requirements:

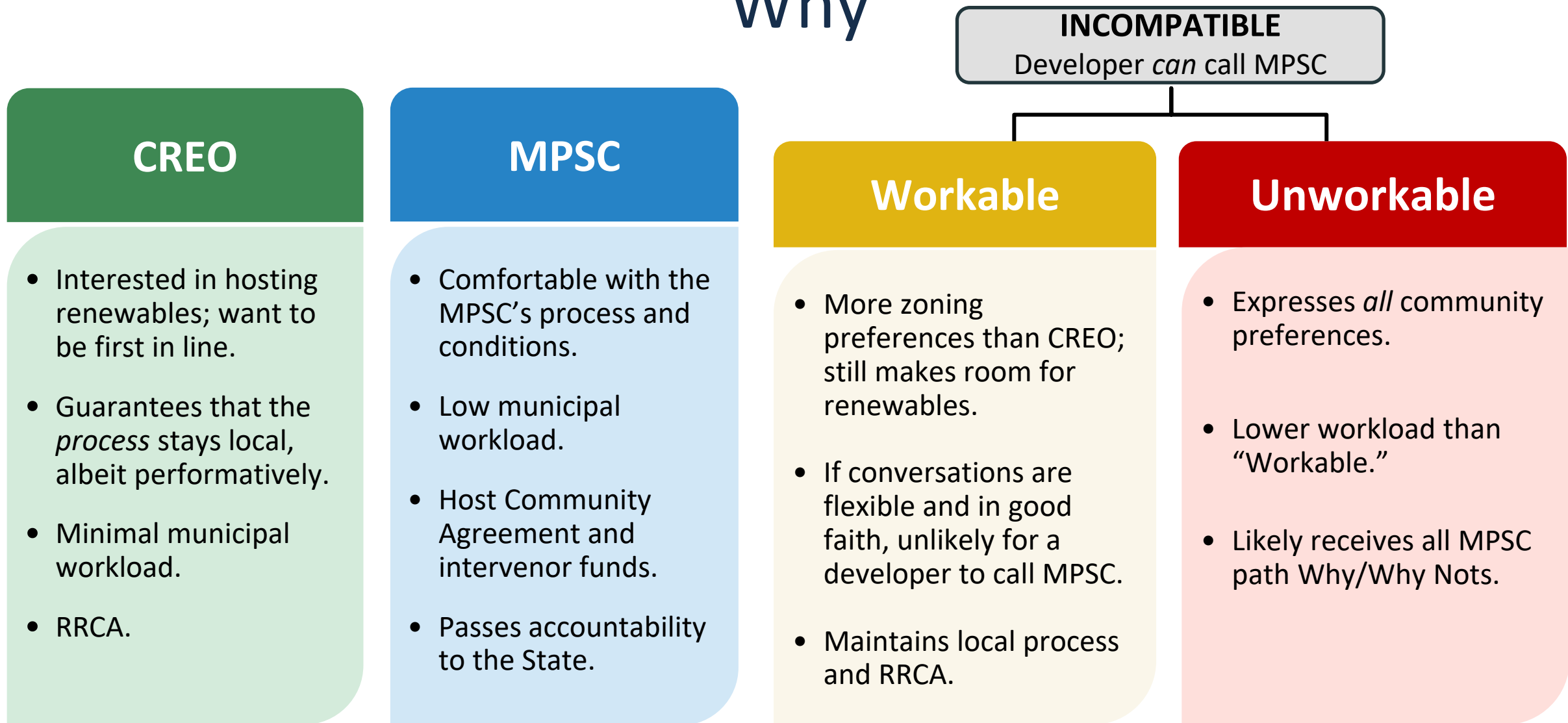
- *Developer pays up to \$75,000 to each ALU* for intervenor's fund with no more than \$150,000 in total for the project.
 - ALU, participating property owner, or non-participating property owner may intervene by right.
- *Developer pays \$2,000 per MW to each ALU* for Host Community Agreement (HCA)
- Up to 365 days for the MPSC to make a decision

Additionally through MPSC:

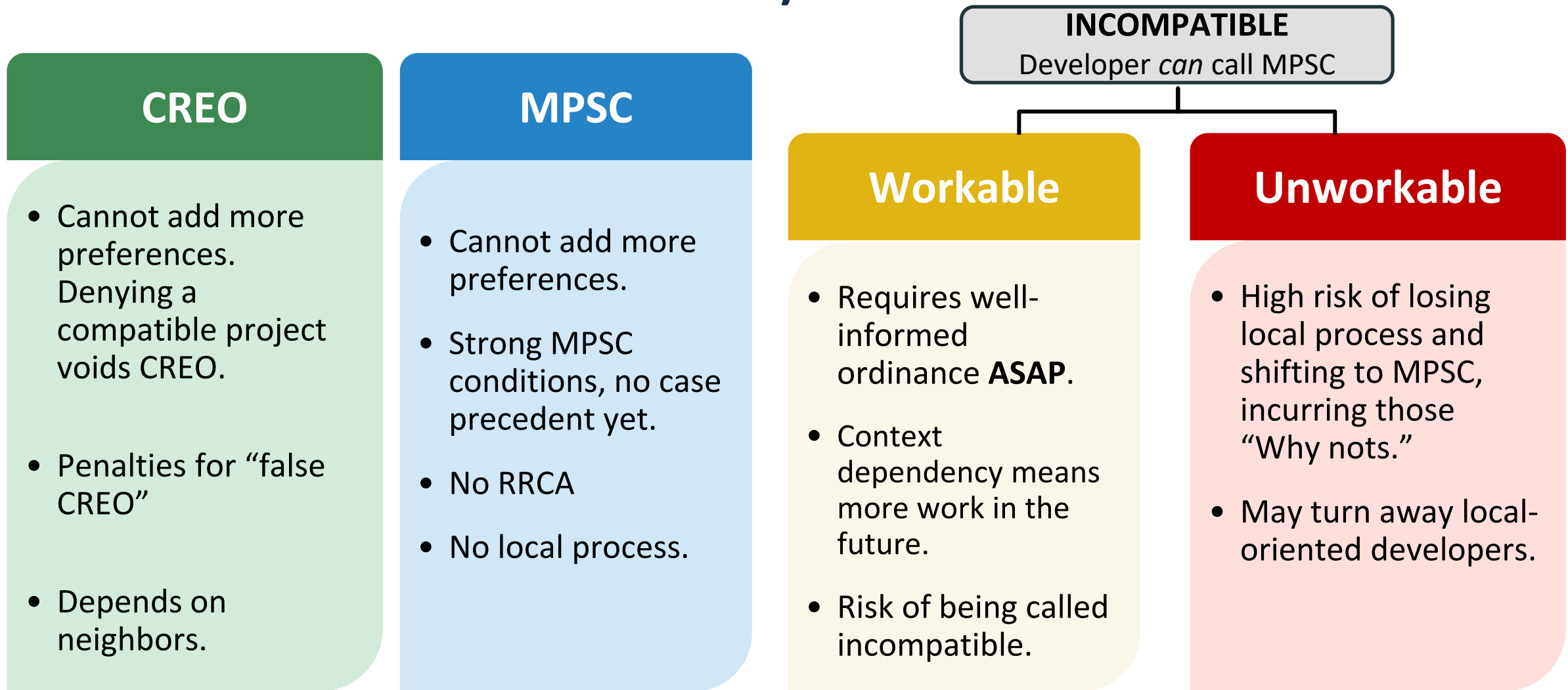
MPSC will also require developers to demonstrate:

- That the project does not “unreasonably diminish farmland”
- That the project “does not present an unreasonable threat to public health or safety”
- That the project has labor & apprenticeship agreements for construction and maintenance
- “The percentage of land within the local unit of government dedicated to energy generation”
- Why alternative sites were not feasible

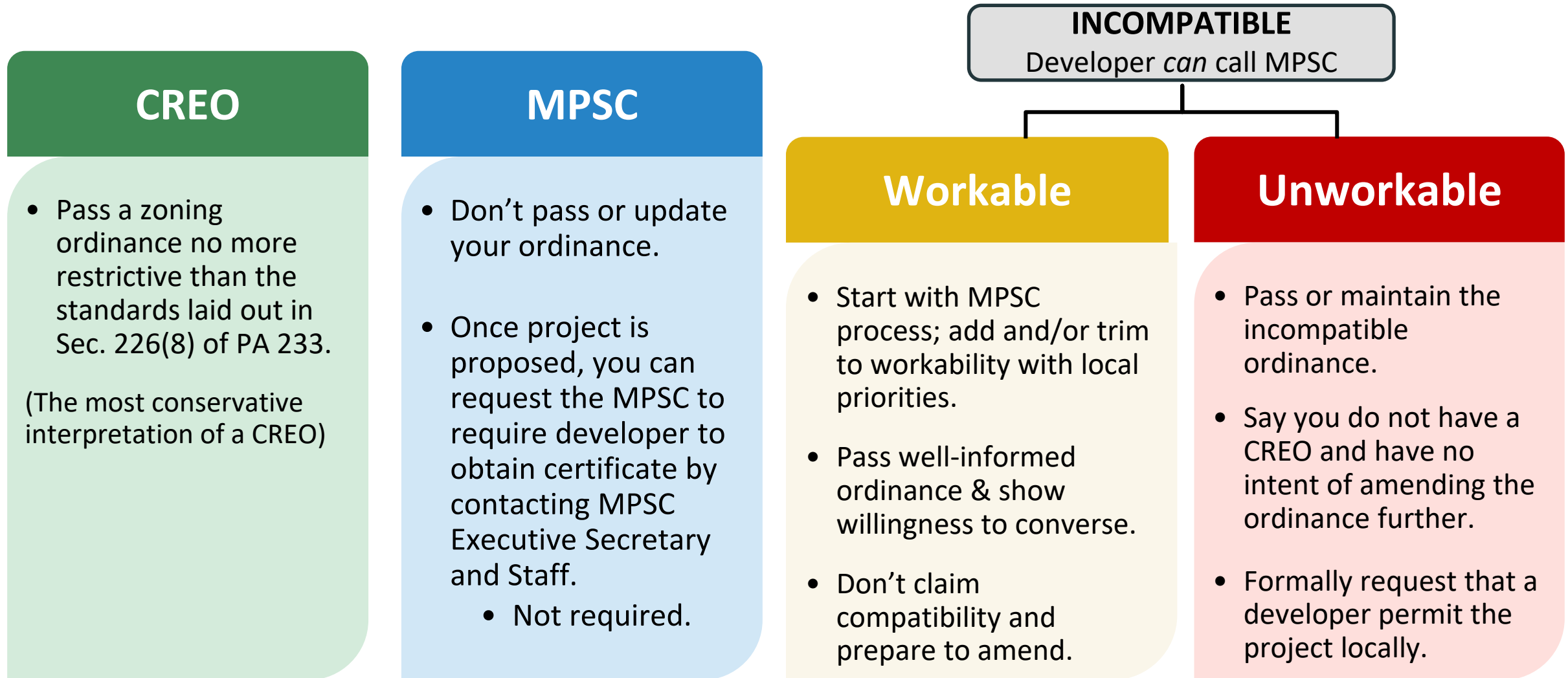
Why



Why Not

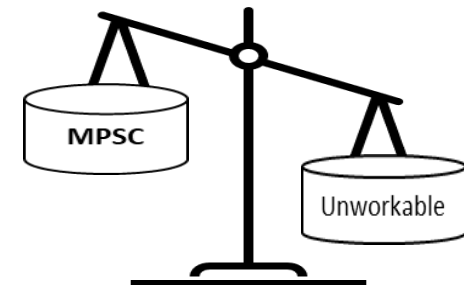
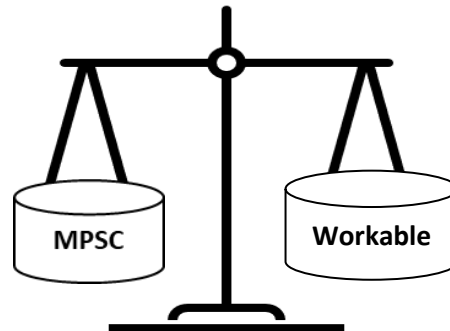
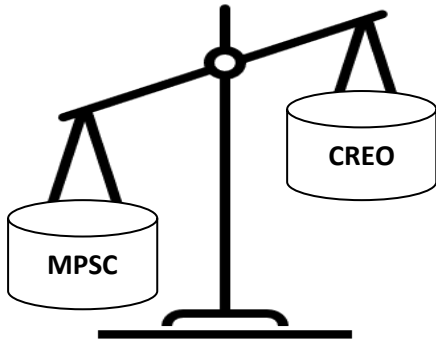


How



Workability is a Balance

- **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

C. Commercial SES are permitted by issuance of a special use permit and approval of a final site 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.

Past Workable Ordinances					
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A B C D E F					
Category	PA 233	Sample Zoning	Condo Township	Missaukee County	Adrian Township
Setbacks	The following minimum setback distances, measured from the nearest edge of the perimeter fencing of the facility: Occupied community buildings and dwellings on nonparticipating properties: 300 feet from the nearest point on the outer wall. Public road right-of-way: 50 feet measured from the nearest edge of a public road right-of-way. 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 maximum tilt or any SES components and as follows: 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). B. ___ (e.g., 300) feet from any existing dwelling unit on a non-participating lot. 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 (excluding 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 associated with such facilities 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-50, 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-1), Urban Residential (R-2), and Multiple-Family Residential (R-3) 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.
Sound	The solar energy facility does not generate a maximum sound in excess of 55 average hours decibels as measured at the nearest double wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the 3-weighted scale as designed by the American National Standards Institute.	The sound pressure level of a large refrigeration SES and all auxiliary solar equipment shall not exceed ___ (e.g. 45) dBA (one (1-hour) at the property line of an adjoining non-participating lot. The SES shall include modeled sound isolates extending from the sound source to the property line to demonstrate compliance with this standard.	The noise generated from an SES shall not exceed forty (40) dBA 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) dBA, the standard shall be the ambient dBA plus five (5) dBA.	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. (1) Fifty (50) dBA, as measured at the property line of any adjacent Residential (R-1), Urban Residential (R-2), and Multiple-Family Residential (R-3) District zoned land in existence at the time the Solar Farm is granted conditional use	The sound noise generated from a Commercial SES shall not exceed 40 dBA 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 dBA, the standard shall be the ambient dBA plus five dBA.
+ Solar Ordinance Text Wind Ordinance Text Solar Projects Studied Wind Projects Studied Methodology and Disclaimers					

Example: Assembly Solar

STRATEGY 1: “FINE-TUNING” A CREO ITEM

Solar sound

CREO

NP Outer Wall*:
55 dBA Leq (1-hour)

* [*“outer wall”
measurement penalty*]

MPSC

NP Outer Wall*:
55 dBA Leq (1-hour)
+

Conditions of Approval:

1. Contract with a third-party acoustics expert for post-construction monitoring
2. Demonstrate compliance and maintain compliance through sound mitigating measures if necessary

Workable

NP Property Line:
Range between
Ambient + 5 dBA Leq
and 60 dBA LMax

Unworkable

NP Property Line:
Below 45 dBA LMax

Sound tweak-points

- Sound standards all include:
 - **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

Solar setbacks

CREO

NP Property Line: 50ft

NP Structure: 300 ft

Public Road: 50 ft

MPSC

NP Property Line: 50ft

NP Structure: 300 ft

Public Road: 50 ft

Workable

NP Property Line: 15-500 ft

NP Structure: 200-500 ft

Public Road: 40-100 ft

P Property Line: 0-50 ft

P Structure: 0-300 ft

Unworkable

NP Property Line: 500+ ft

NP Structure: 500+ ft

Public Road: 100+ ft

P Property Line: 50+ ft

P Structure: 300+ ft

Solar height

CREO

25 feet at full tilt

MPSC

25 feet at full tilt

Workable

14 - 18 feet or district
height

Unworkable

Below 14 feet

Solar decommissioning

CREO

Financial assurance
after deducting
salvage value:

- 25% on operation
- 50% by 5th year
- 100% by 10th year

MPSC

Same as CREO +
Conditions of Approval:

1. Repair all drainage systems damaged during construction and decommissioning
2. Demonstrate that financial assurance has been acquired and will be maintained

Workable

Decommissioning Plan agreed upon by developer and community, including financial assurance **after deducting** salvage value, reviewed every 3-5 years:

- 100% upon permitting

Unworkable

Financial assurance **including** salvage value, reviewed and updated every 3-5 years
Recycling of all materials:

- 125 % upon permitting

STRATEGY 2: “MIRRORING” AN MPSC ITEM

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

*Examples:
Standards of underlying
zoning district, if
inadequate then PC may
require along NP
residential uses;
or MSU-E/UM sample
zoning guidebook*

Types of screening:
Landscaping and
Privacy Fencing, or
Berming

*Example:
Multiple rows of trees at
mature height all around
project*

Solar ground cover

CREO

MPSC

Workable

Unworkable

Evaluation Criteria:
Vegetative
groundcover in
consideration of MSU's
Michigan Pollinator
Habitat Scorecard
**+ similar Condition of
Approval**

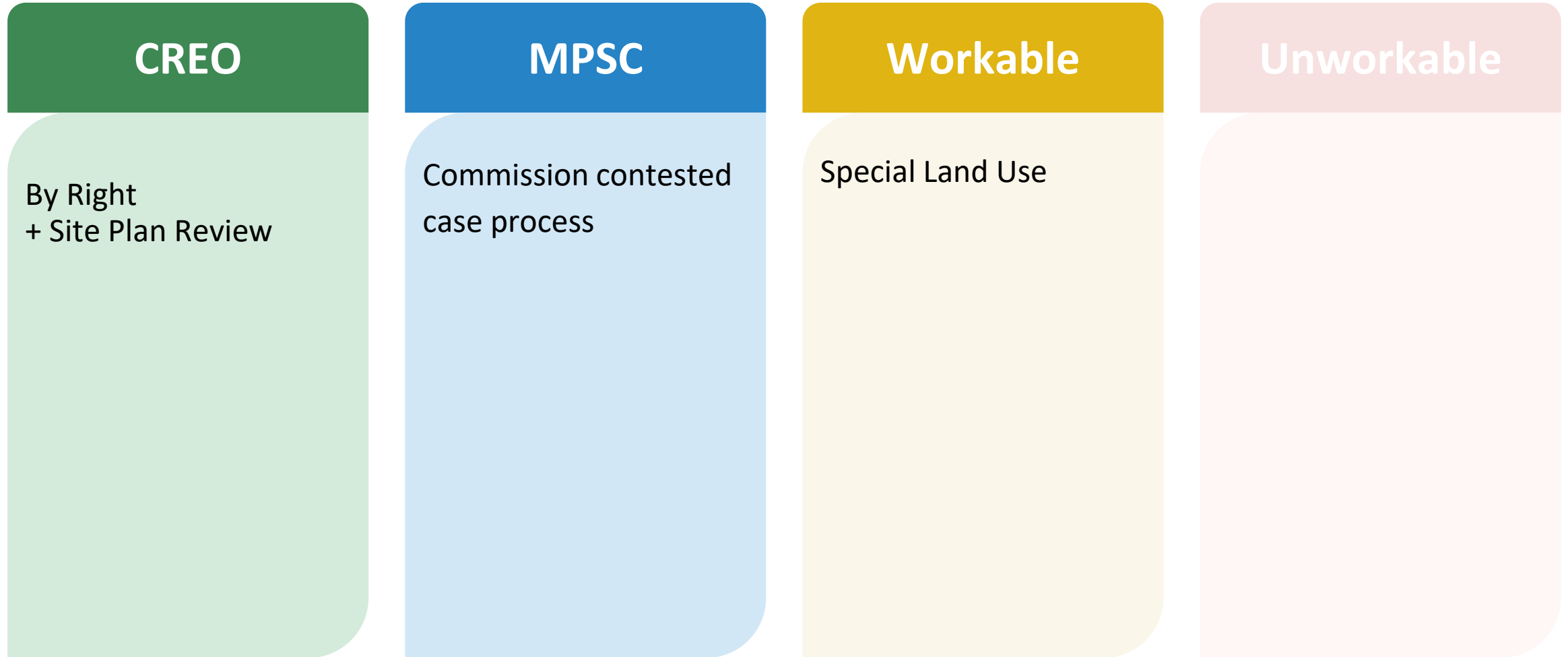
Sites not enrolled in PA
116 must meet one or
more of the four types of
dual use:

- 1) MSU Pollinator
Habitat Planning
Scorecard for Solar
Sites: score of 76 or
more
- 2) Conservation cover
- 3) Forage cover
- 4) Agrivoltaics

Must meet one of two
types of dual use:

- 1) Forage cover
- 2) Agrivoltaics

Solar approval process



STRATEGY 3: PAY EXTRA ATTENTION TO “DEALBREAKER” ZONING ITEMS

Solar location control

CREO

All districts

MPSC

All districts + Evaluation Criteria:

- 1) Will not unreasonably diminish prime farmland
- 2) Shall consider feasible alternative development locations
- 3) Shall consider impact on local land use, including % of land dedicated to energy generation

Workable

! Districting !
! Lot minimums !

Implemented in a way that still provides ample and suitable land for renewable development + large patch size + access to transmission/substation is considered



Especially problematic when a developer has already identified a project location!

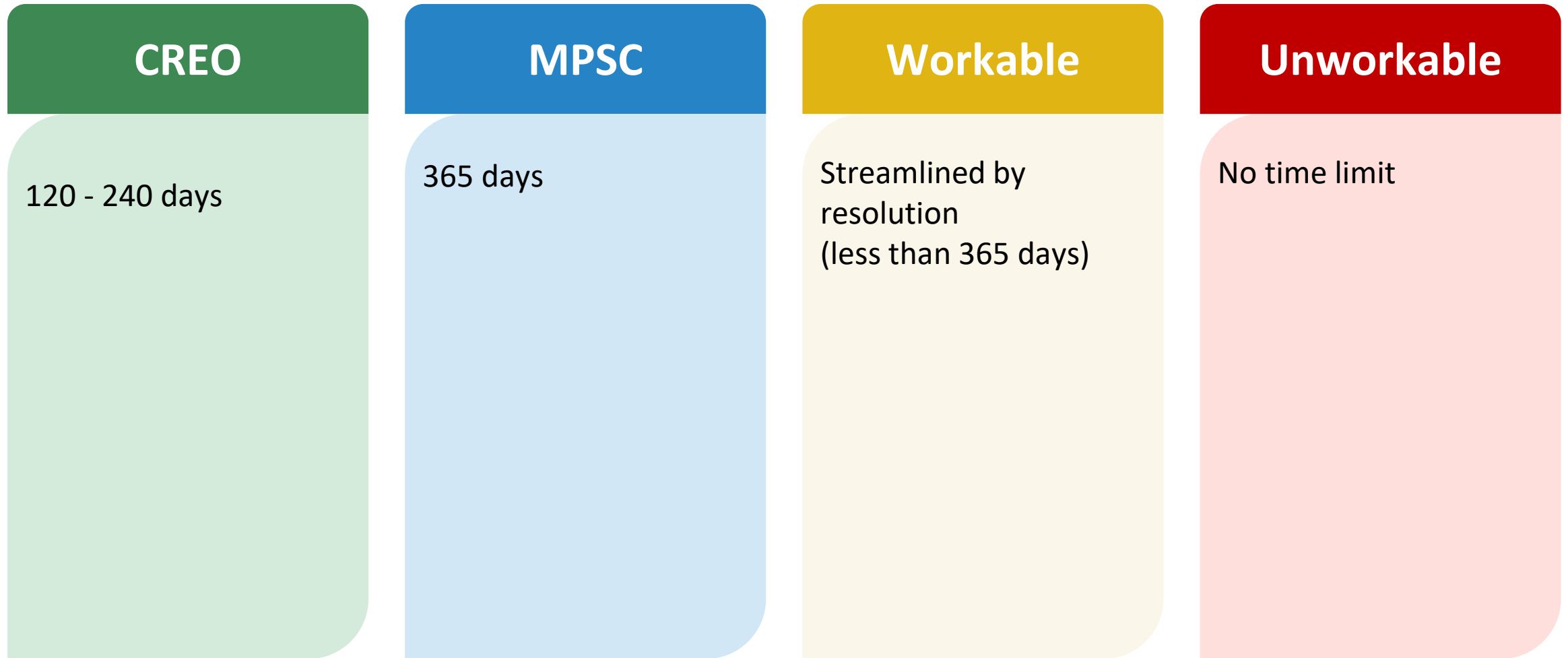
Unworkable

! Overlays !
! Districting !
! Lot Maximums !

Implemented in a way that does not provide ample and suitable land for renewable development

STRATEGY 4: GET YOURSELF EASY WIGGLE ROOM

Review timeline



Additional financial benefits

CREO

Not required of developer through zoning.

Reminder: If permitted locally, eligible for RRCA

MPSC

Guaranteed \$2,000/MW Host Community Agreement for Zoning Authority

Workable

Community Benefits Agreement

Request financial benefits tied to direct impact of project on community.

*Reminder:
If permitted locally:
Eligible for RRCA
If permitted at state:
Guaranteed HCA*

Unworkable

Community Benefits Agreement

Require \$/MW CBA that's greater than the MPSC's HCA requirement.

*Reminder:
If permitted locally:
Eligible for RRCA
If permitted at state:
Guaranteed HCA*

STRATEGY 4:

GET YOURSELF EASY WIGGLE ROOM

Other examples for easy wiggle room include:

- MPSC's Application Filing Requirements that you can live without
- Alternative locations analysis
- Proof of consultation with other agencies, ...

RENEWABLE ENERGY ZONING ACTIVITY

This is a *solar* hypothetical, but the thinking will be useful for any technology.

Workable Zoning Activity

- Sound
- Setbacks
- Screening
- Ground Cover
- Height
- Decommissioning
- Location Control
- Timeline
- Approval Process
- Additional Financial Benefits

**CREO PA 233
Standards**

**PA 233 Standards +
MPSC Conditions of
Approval**

**Workable
Incompatible
Standards**

**Unworkable
Incompatible
Standards**

Activity instructions



We'll hand out activity cards and instruction sheets.



→ **Meet your client:**

The fictional Great Lakes Township.

→ **Play through the scenario – Follow the prompts:**

Craft a dream ordinance and exercise the balancing act of workability by following prompts on the screen.



After the activity: Group report-out and closing remarks.

Scenario: Great Lakes Township

- Great Lakes Township is a rural community that prides itself for their contribution to agricultural production and the peaceful rural landscapes the area has to offer.
- The people of Great Lakes Township hope to preserve the community's character and landscape as much as possible, but they also recognize that the current siting landscape prevents restricting the land use.
- Great Lakes Township believe a workable ordinance drafted prior to a project proposal aligns most with their community goals.
- They've hired **you** to help them draft a solar ordinance that reflects their community priorities while also establishing a starting point for workability should a developer come to the planning commission with a proposal.



Great Lakes Township Priorities Summary:

- ❖ Preserving the rural, agricultural character of the township.
- ❖ Preserving the serene, peaceful nature of the environment in the township.

Zoning Activity Step 1

Step 1: Craft Great Lakes Twp's "Dream Ordinance"

- Don't worry about workability yet.
- One by one, flip through each card set and choose the preferred option that aligns with your community's priorities.

**CREO PA 233
Standards**

**PA 233
Standards +
MPSC
Conditions of
Approval**

**Workable
Incompatible
Standards**

**Unworkable
Incompatible
Standards**

Zoning Activity Step 2

Step 2: Balance your ordinance priorities

- Now let's start thinking about workability.
- Following the prompts on the next slides, we'll exercise this balancing act.

**CREO PA 233
Standards**

**PA 233
Standards +
MPSC
Conditions of
Approval**

**Workable
Incompatible
Standards**

**Unworkable
Incompatible
Standards**

Step 2: Balance your ordinance priorities

- Rank your **three highest priority** zoning items in the Dream Ordinance you just crafted.

Setbacks

Sound

Ground
Cover

Height

Screening

Decommission
-ing

Location
Control

Timeline

Approval
Process

Financial
Benefits

Step 2: Balance your ordinance priorities

- If you had to **remove two** zoning items below from consideration, which two would it be?

Setbacks

Sound

Ground
Cover

Height

Screening

Decommission
-ing

Location
Control

Timeline

Approval
Process

Financial
Benefits

Step 2: Balance your zoning priorities

- Change **one red** or **yellow** card to **green** or **blue**.
 - In exchange, you are allowed *one total red* card.
What item would it apply to?

This reflects the process of *reducing a low-priority item* with the expectation of *maintaining a high-priority item*.

Zoning Activity Step 3

Step 3: Reactive scenario

After you have passed your proactive ordinance, SunEnergy Inc. approaches Great Lakes Township with a solar energy project proposal. They already have signed leases with a few landowners in the community, and their parcels do not land in districts in which the existing ordinance allows for renewable energy.

How do you respond?

If you can ask the developer for a more protective item to make up for the location accommodations, what would you choose?
You can also include items not currently in your card deck.

Activity report out



What was one thing you learned through the activity? Did something surprise you?

Which challenges do you anticipate planners face in helping communities decide for a pathway and balancing priorities? What's needed to support them?

Which questions do you still have? Which questions do you anticipate communities and planners have?

Where does planning fit in all of this?

- The role of planning in PA 233
 - Not in the law, but MPSC instructions require it
 - MPSC to consider impacts on local land use
- Identify top community concerns and priorities to inform a workable ordinance
 - Tools: Mapping local suitability for solar/wind (EGLE); community engagement
- Consider energy facilities in the context of existing goals
 - Early conversations about tensions between goals/zoning items helpful either way
- “Rezoning justification memo”/findings
 - For the ordinance decisions you take, link intentions to master plan goals
 - If MPSC route, paper trail for contested case

Fit with common planning goals

<u>Typical Principles and/or Goals</u>	<u>Wind</u>	<u>Solar</u>	<u>Energy Storage</u>
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

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Example goals & zoning levers

- Rural character
 - Sound, setbacks, screening?
- Tourism development
 - Screening, height of panels, location control?
- Preserving forested lands
 - Decommissioning, location requirements?

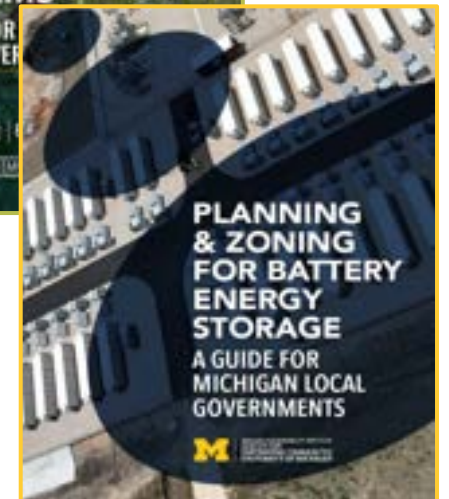
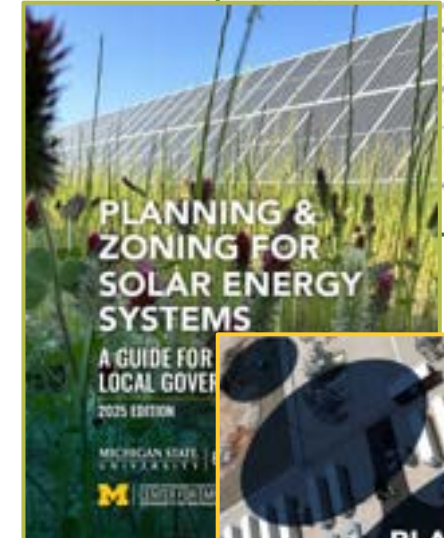
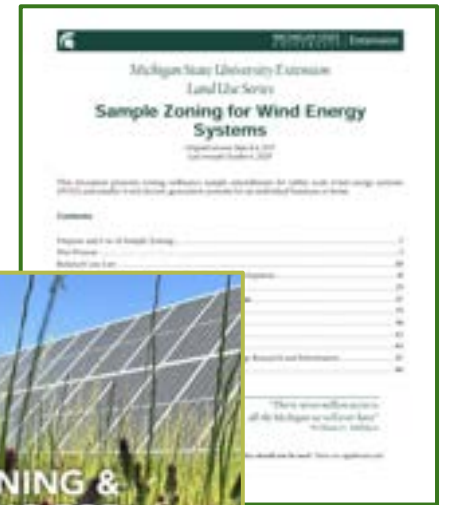
So, what's next?

We won't know how any of this will truly play out until there's 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**
 - Get your municipal planner and attorney involved
 - 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're still leaning towards an “Unworkable” ordinance, consider exploring how to harness benefits and minimize priority impacts with a workable ordinance

Resources

- **MPSC:** Renewable Energy and Energy Storage Facility Siting [webpage](#)
 - FAQs, MPSC's Application Filing Instructions and Procedures, Recording of stakeholder engagement workshops
- **UM Center for EmPowering Communities:** PA 233 resources
 - <https://graham.umich.edu/project/MI-energy-siting>
 - FAQs, guidance on “workable” ordinances (data), sample CREO
 - [Solar guidebook \(2025 ed.\)](#), [storage guidebook](#), [annotated wind guidebook](#) (MSU-E)
 - Checklists for local govts. navigating MPSC, CREO processes
- **EGLE:**
 - Renewable Energy Academy [webpage](#)
 - Renewables Ready Communities Award [webpage](#)
 - Michigan Zoning [Database](#)
- **Michigan Townships Association:** PA 233 resources
 - Sample workable ordinances, sample CREO, Application Fee Escrow Documents, etc. ([members only](#))



Resources cont.

- **Local resource potential maps:**
 - Reach out to EGLE!
- **MPSC Resource Hub:**
 - Michigan-specific [maps](#) of solar and wind projects, utility service areas, and much more
- **MISO Interconnection Queue:**
 - Interactive Queue [Map](#) showing proposed projects in Michigan
 - Interactive Queue [Data](#) (additional information on proposed projects)
- **Geospatial Energy Mapper Tool:**
 - Launch [tool](#) to view map with layer of existing transmission lines and substations, county boundaries, etc.
- **US Energy Information Administration:**
 - Existing Energy Infrastructure and Resources in the US ([map](#))
 - Form EIA-860 [data](#) (existing and planned energy generators)
- **US [Wind Turbine Database](#) and [Solar Photovoltaic Database](#)**





Questions?

- **Reach out to us**
 - Answer questions
 - Review draft ordinances
 - Talk through pros/cons of alternatives
 - Connect you to other communities, MSU-Extension
- **More training**
 - Renewable Energy Academy Workshops
 - Online webinars on zoning

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