What the New Renewable Energy Siting Legislation Means for Planning & Zoning

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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

CENTER FOR EMPOWERING COMMUNITIES
UNIVERSITY OF MICHIGAN

MICHIGAN STATE UNIVERSITY | Extension

Who are we?

- EGLE → Energy Services Unit
  - Ian O'Leary
- University of Michigan → Center for EmPowering Communities
  - Madeleine Krol
- MSU Extension → Land Use Team
  - Mary Reilly, AICP
- Our teams are working together as the "Renewable Energy Academy."

What we'll cover today

- **Introduction to PA 233**
- **Permitting pathways & the pros/cons**
- **Workability is a balance**
- **Role of planning in PA 233**
- **Q&A**

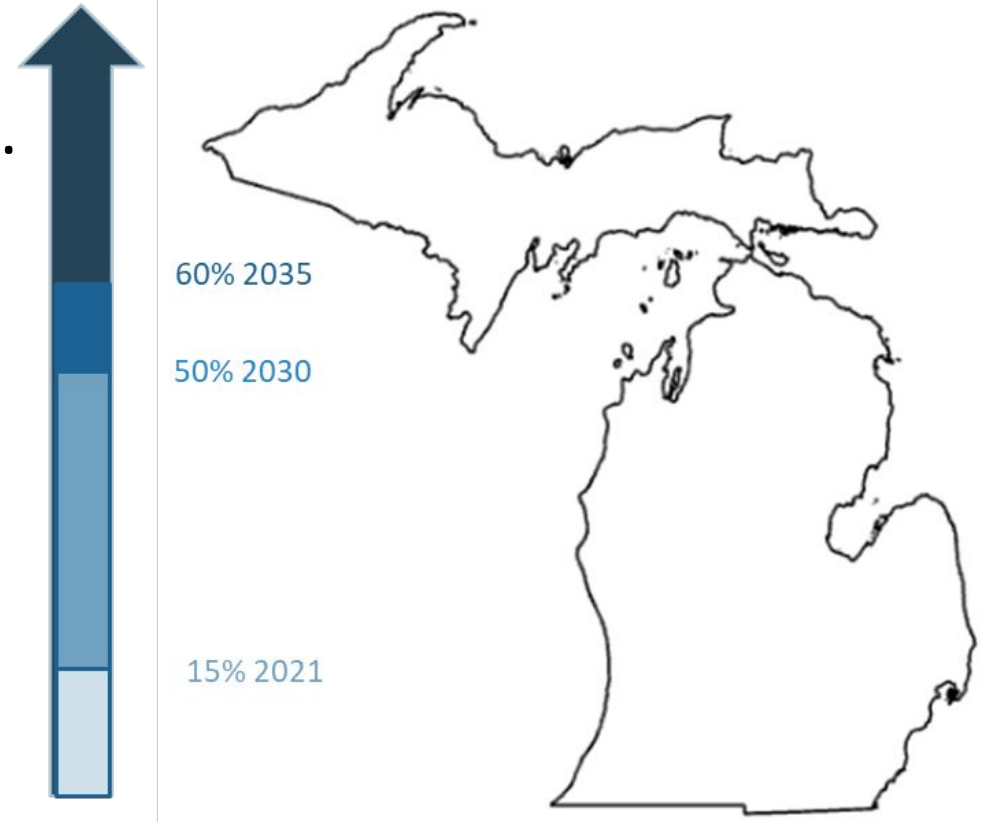
Our Scope

Help prepare for the new renewable energy landscape in light of both PA 233 and increased RPS.

- Renewable Portfolio Standard of 50% by 2030

We're taking current policies at face value, but believe local zoning is still effective & necessary.

- As such, decision on how to apply this information is up to local governments



Renewable Energy Portfolio Standard

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.

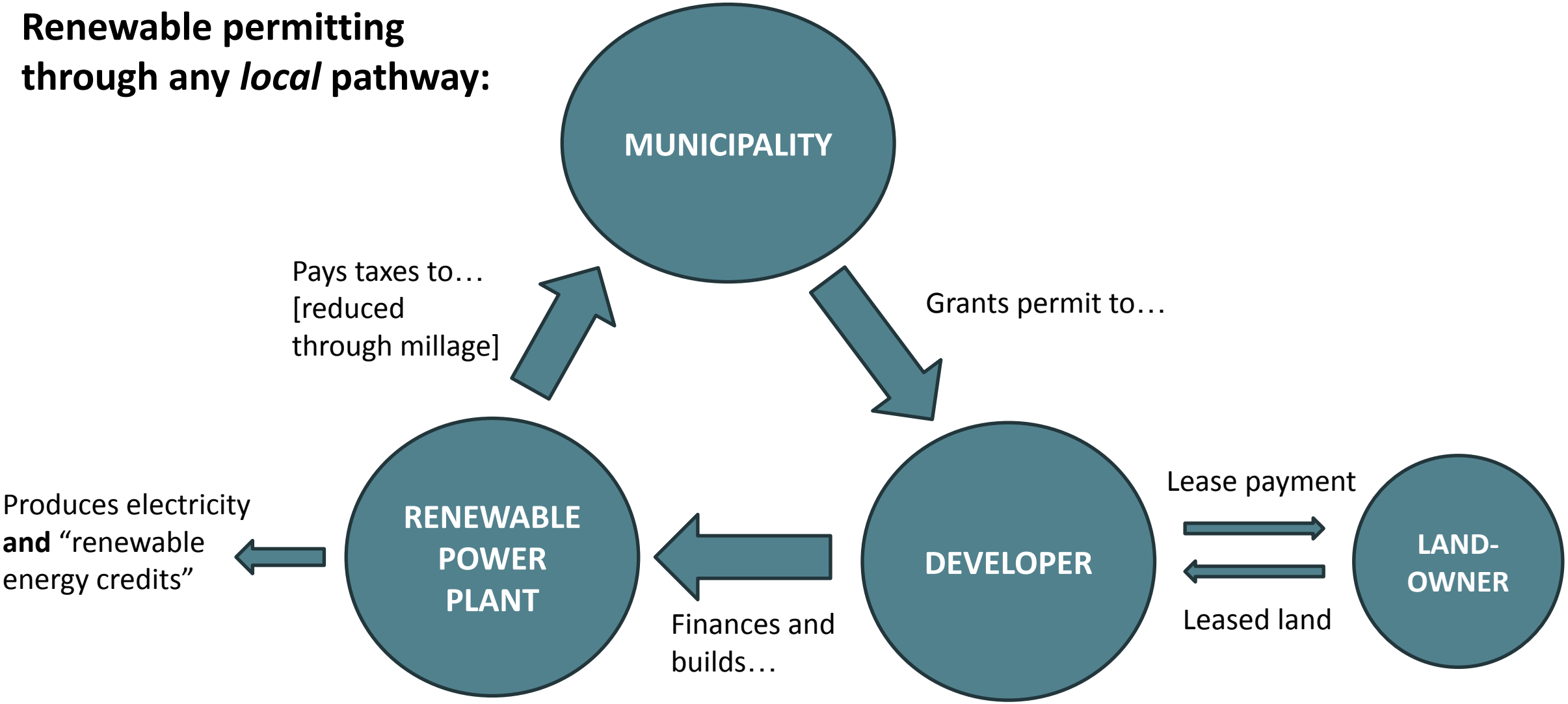
Solar Energy:
50 MW nameplate capacity

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

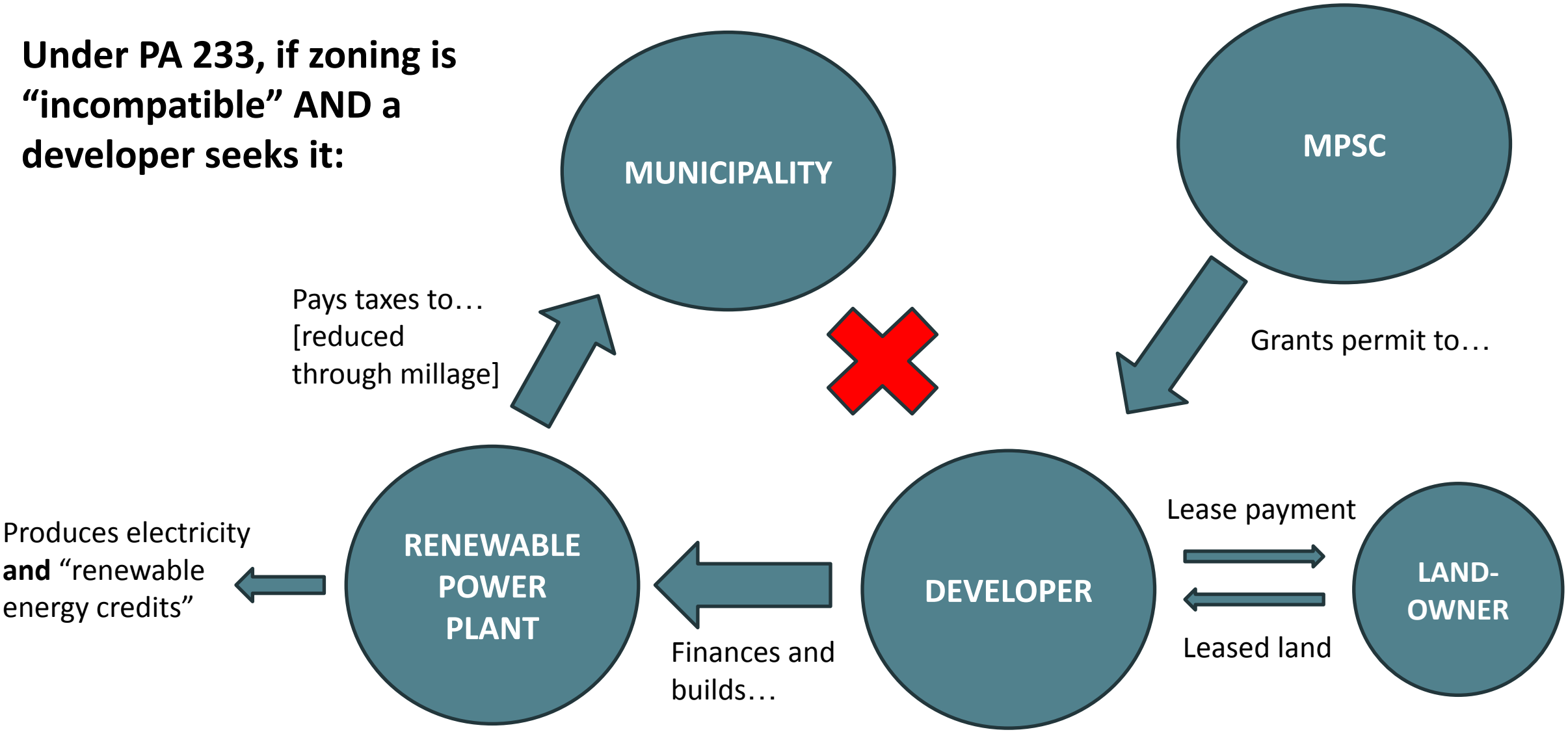
Wind Energy:
100 MW nameplate capacity

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.

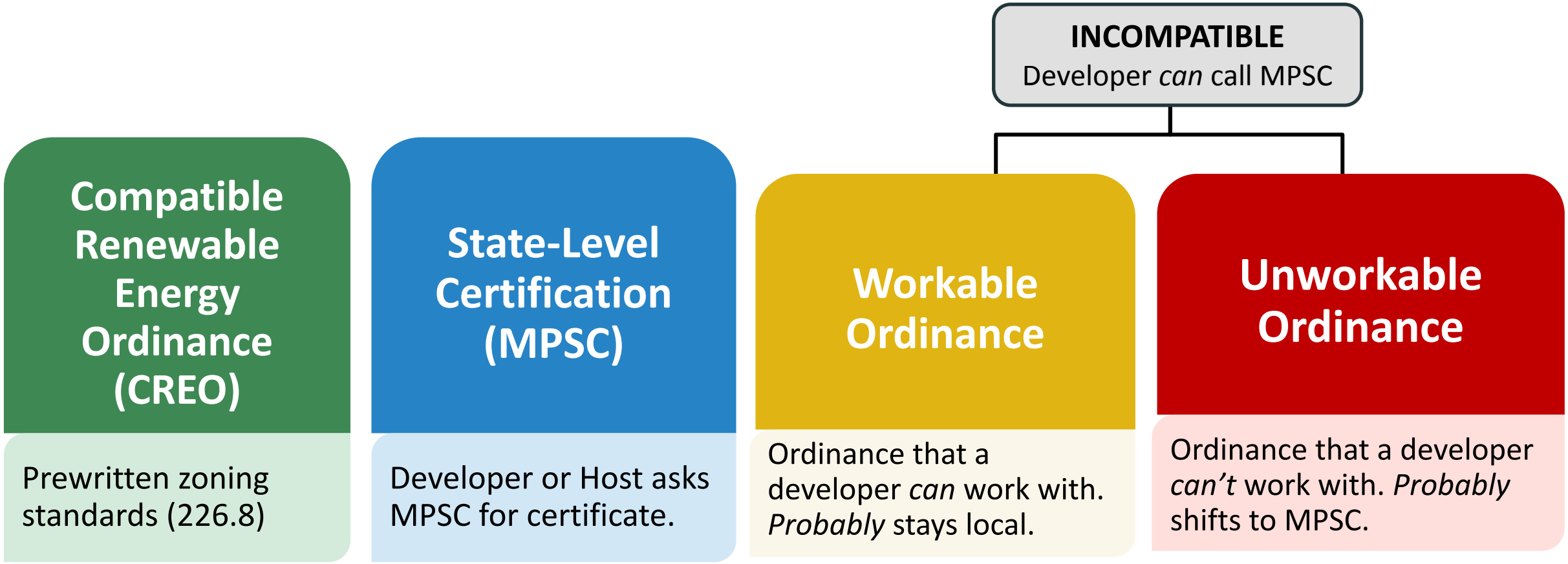
Renewable permitting through any *local* pathway:



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



4 Permitting Pathways - Overview



Current MPSC Position

- A lot depends on the MPSC: Where will they set the bar?
- Nothing is currently **certain** other than the “evaluation criteria” outlined in PA 233.
- However, we have a good sense based on:
  - Workshops with candid conversation, knowledgeable staff, and open comments from stakeholders.
  - “Draft Application Instructions and Procedures” released June 21st.
    - **Draft.** Finalized at some point prior to Nov 29th.

Why “workable” ordinances can work

- PA 233 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.
    - $2,000 per MW HCA; $75,000 intervenor funds; up to 365 days
  - Many developers have expressed preference towards *workables*.
  - MPSC 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.” *

Our sense: CREO will be top preference for its cheap & quick process… but next preference is a *workable local ordinance.* Only when an ordinance becomes "unworkable" will a developer call MPSC.

<u>Note: This isn't true for all developers and all cases.</u>
MPSC certification is still a highly viable option.

What a project through each pathway *looks like*

Compatible Renewable Energy Ordinance (CREO)

Zoning parameters in state law are quite permissive. Projects will be easy to build & can't be denied.

State-Level Certification (MPSC)

MPSC Draft guidelines require many consultations and approvals. Projects will have permissive standards but strong due diligence.

INCOMPATIBLE
Developer *can* call MPSC

Workable Ordinance

Depends on developer, project context, and community priorities. Will *inherently* make room for renewables, but not like a CREO.

Unworkable Ordinance

An unworkable ordinance will *very likely* result in an MPSC project.

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Renewables Ready Communities Award (RRCA)

- In PA233, developers must *pay communities* for State siting. This disincentivized communities from updating their own ordinances, which is suboptimal for developers due to the timeline.

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

The RRCA provides up to $5,000/MW to permitters and hosts of eligible utility-scale renewable energy projects which underwent **local** permitting processes (Workable or CREO.)

The total current funding available is $30,000,000, but CPRG funding will significantly expand the amount available. There is **no deadline to apply** — open until funds are depleted.

Why

CREO

- Interested in hosting renewables; want to be first in line.
- Guarantees that the *process* stays local, albeit it in a more performative way.
- 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.

INCOMPATIBLE
Developer *can* call MPSC

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.

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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.

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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

- "Mirror" MPSC process; trim to workability w/ 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 have no CREO and no intent of amending to a workable ordinance.
- 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.

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CHECK-IN

Does anyone live or work with a community that is leaning toward one particular path:

- MPSC
- CREO
- Workable
- Unworkable - stay as is

Please share a few factors or reasoning for choosing that path.

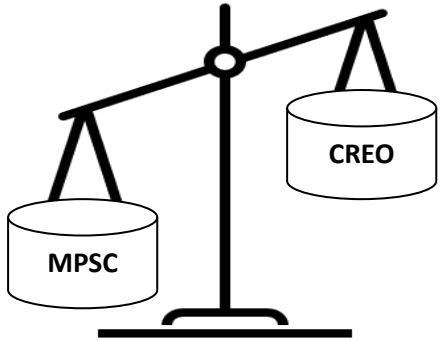
WORKABILITY

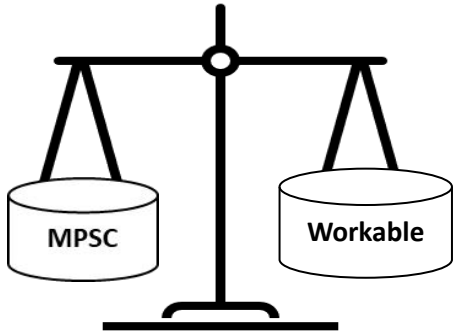
EGLE and the presenters are not providing any legal advice through this presentation. Every municipality should consult with legal counsel about any zoning decision.

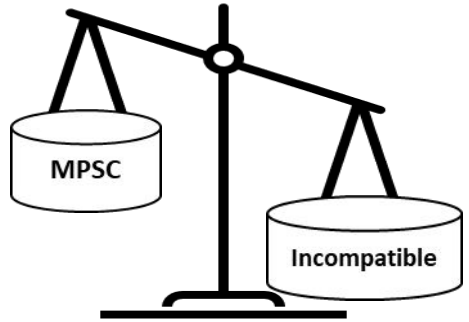
Workability is a balance

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

- **Starting from the MPSC's Standards, Conditions, and Process:**
  1. Rank the standards and conditions in order of importance to your community
  2. 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
  3. Identify the standards and conditions you'd be willing to give up/soften
     - This frees up some wiggle room to include community preferences while maintaining balance







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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.

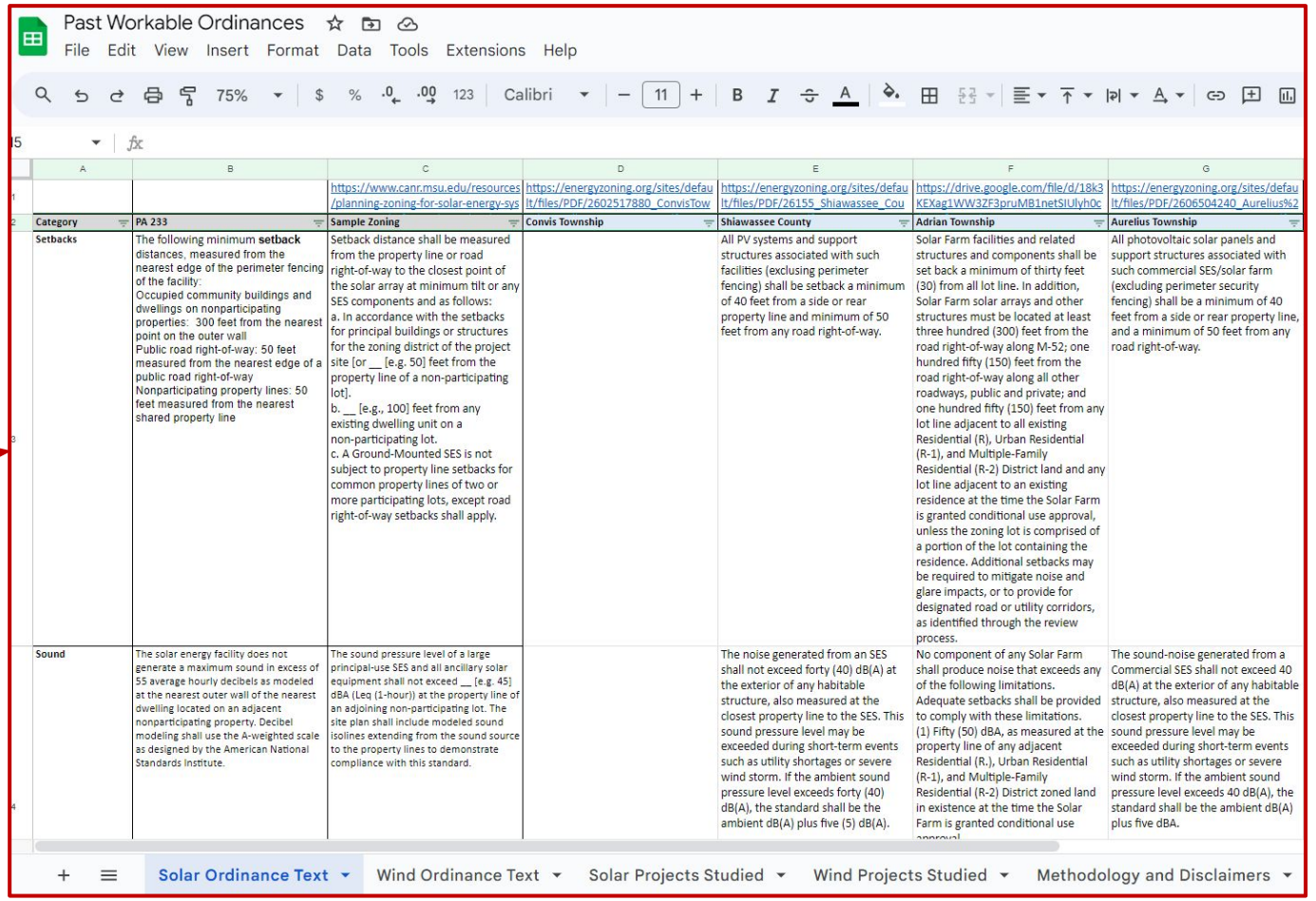
B. Electrical and Building Codes. All electrical compartments, storage facilities, wire conduit, interconnections with utility companies and interconnections with private structures will conform to national and local electrical codes. All SES shall comply with local building permit requirements.

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.

Example of Assembly Solar



		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
Category	**PA 233**	**Sample Zoning**	**Convis Township**	**Shiawassee County**	**Adrian Township**	**Aurelius 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 minimum 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., 100] 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 (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.
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. (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.

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

Solar Sound

CREO

NP Structure:
55 dBA Leq (1-hour)

MPSC

NP Structure:
55 dBA Leq (1-hour)
+
Conditions of Approval:
Sound Modeling Study and Demonstrated Compliance

Workable

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

Unworkable

NP Property Line:
Below 45 dBA LMax

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 3 permissive elements: Average, structure, non-participating only
- Changing CREO items is a balancing act, e.g. keeping Leq may gain leniency elsewhere

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*

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

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

Unworkable

! Overlays !
! Districting !
! Lot Maximums !

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

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

Timeline

CREO	MPSC	Workable	Unworkable
120 - 240 days	365 days	Streamlined by resolution (less than 365 days)	No time limit

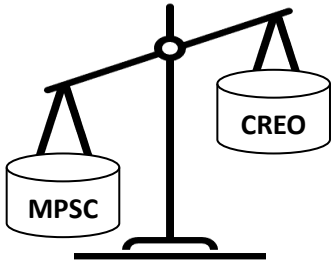
Strategy 4: Get yourself easy wiggle room

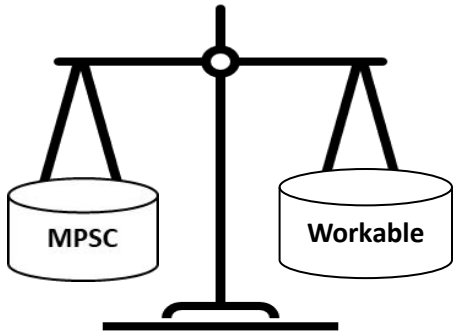
- Timeline as an example:
  - Cutting cost to developer that are imposed through MPSC process

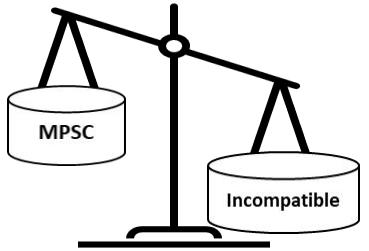
- Time is money
    - **Review Process Timeline**
      - **MPSC** = 365 days
      - **CREO =** 120-240 days

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

Workability is a Balance







Planning (Engagement) and Utility-Scale Solar

Act 233 and Master Plans

- Act 233 does not require applicants to refer to local master plan or zoning districts
  - Call to reference local master plans (for certain requirements) by U of M during MPSC hearing process

- The specific role of planning for utility-scale systems-**?** (silent)
- Planning's role for systems <u>below</u> Act 233 thresholds - **yes**

EGLE

Planning- at scale

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

On-site, accessory, and smaller principal use systems remain under local planning and zoning

Act 233 addresses **principal use (larger)** systems (i.e. 250-500 acres 50 MW solar)

Grid-connected + large principal use = **utility-scale**.

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

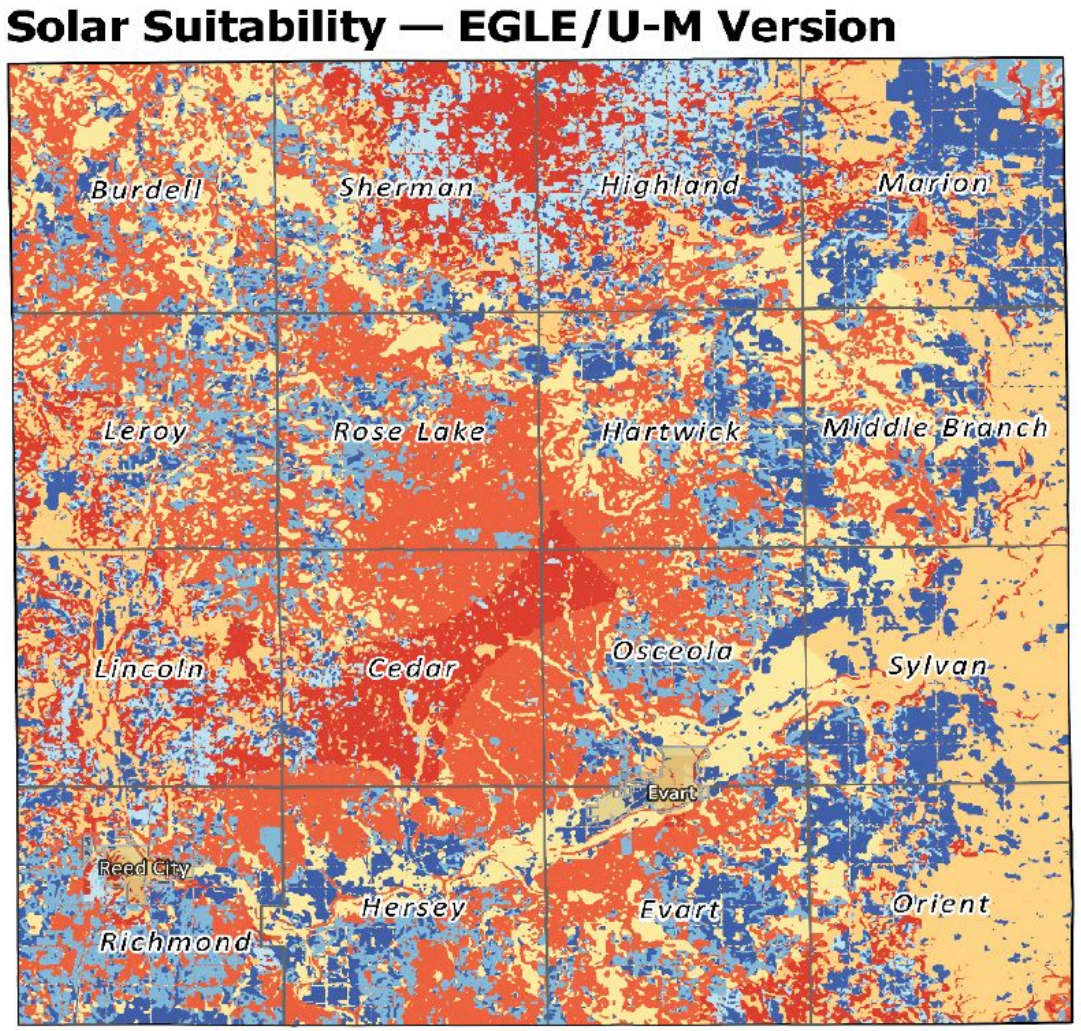
EGLE

Example: Osceola County Community Centered Solar

credit: Mary Reilly

- Osceola County Jan-May 2024
- Research (Lawrence Berkeley Natl. Labs)
- National Extension guidebook (2025)
- **Local project team guided process**
  - MSU Extension Osceola County
- Why Osceola County?

Solar Suitability- Osceola County



Points Scored

Worse — Better

200 — 1000

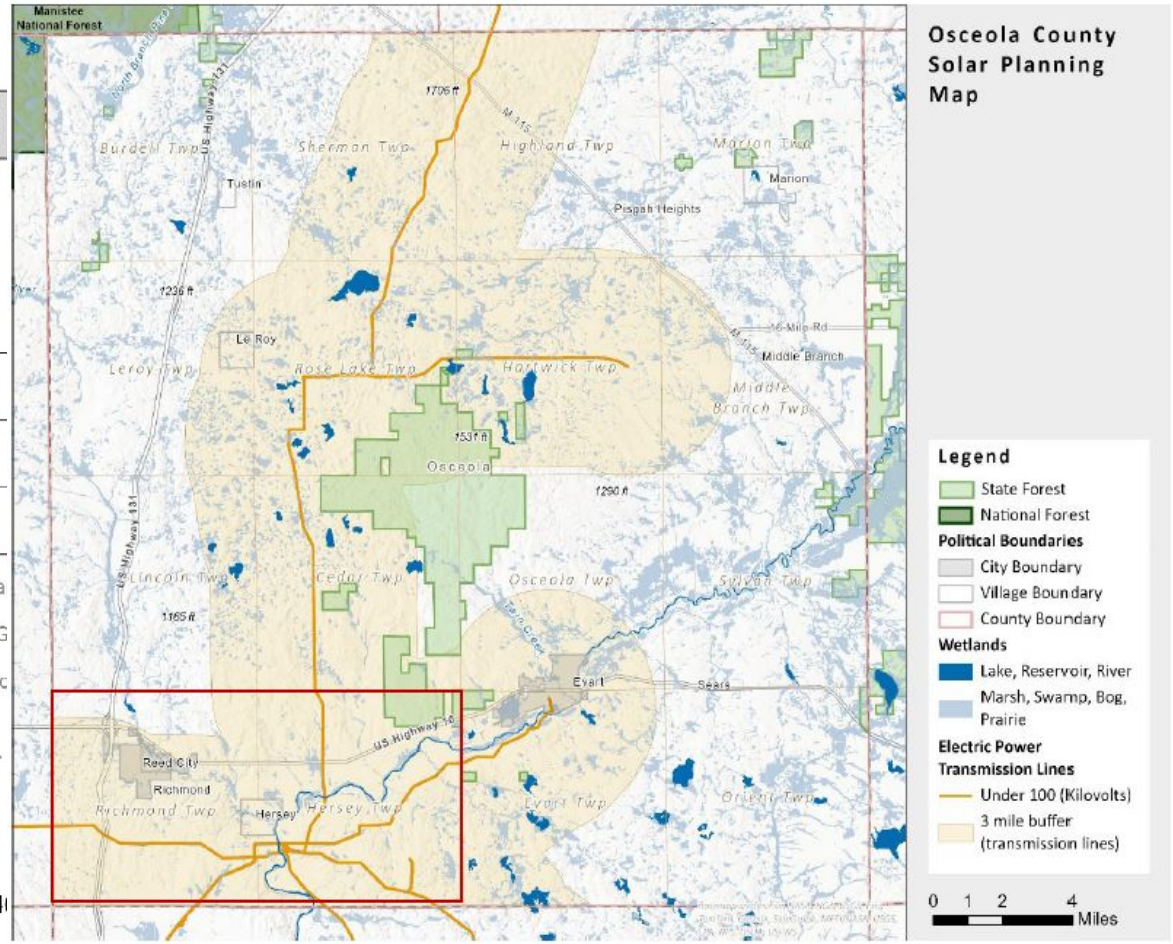
Factor
Prefer unforested & upland land cover *Penalize developed, forested, wetlands*
Near electrical substation
Prefer gentler slopes
Low population density

Basis: EGLE/U-M resea adapted a national energy zones model (G to focus on Michigan. They selected the facto most important in this region and modified scoring to fit.

Map Scales
Distance / Area

2 Miles

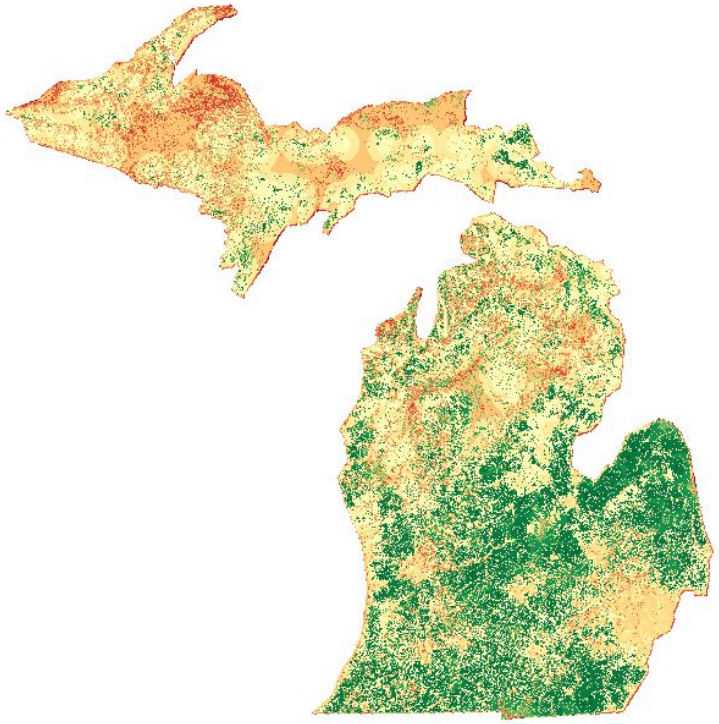
Existing Transmission



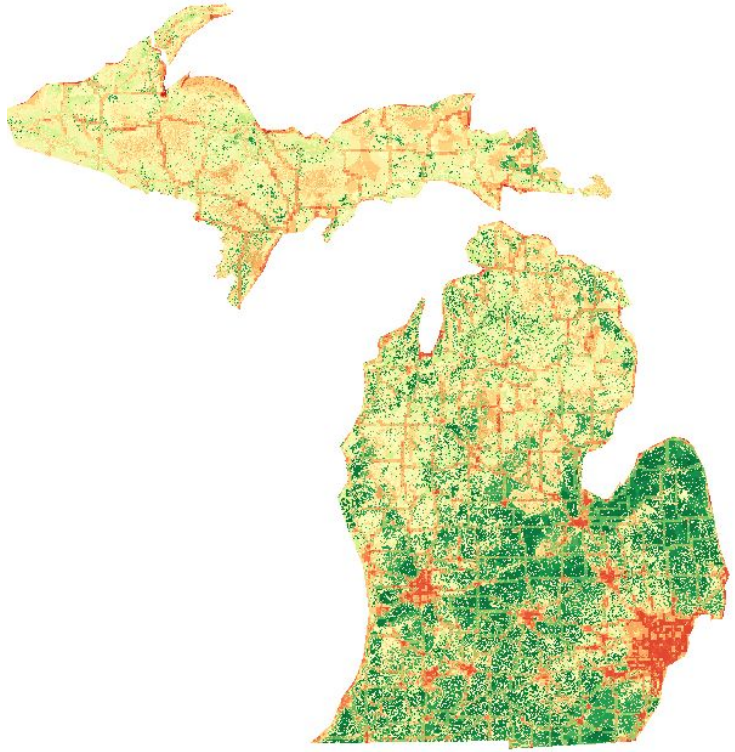
EGLE

Renewable Energy Resource Assessment Model

Modified: Resource Assessment Model for Michigan



Solar



Wind

- An ArcGIS model EGLE built based upon GEM
  - Resolution: 100 feet*100 feet
- Add in local considerations
- Available for further analysis
  - Highly flexible; can change priorities and add areas of exclusion easily

Less Suitable

More Suitable

Process Overview: Osceola County example

Town Hall Meeting # 1

The good, the bad, and the trade-offs for large scale solar

Community Survey

Identify local perceptions:

- benefits and concerns
- scale/location
- land use preferences

Town Hall #2 Engagement:
Where is large scale solar suitable or unsuitable? What are responsible siting priorities?

Town Hall #1: What are you trying to preserve?

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

Credit: U of M, Center for EmPowering Communities Sarah Mills

Town Hall #1: facts worth repeating

- Solar is a viable technology in Michigan
- Utility-scale solar is a cost competitive energy source
- Project decommissioning guarantees are real
- Solar panels are not toxic (see MSU's Annick Anctil)
- Solar on parking lots, brownfields, gravel mines
  - (locally incentivize + make it SUPER EASY)
- Wildlife studies can be done… specific to species/region

FAQ: https://www.michigan.gov/egle/faqs/climate-and-energy/clean-energy
A Reality Check about Solar Panel Waste and the Effects on Human Health, *Inside Climate News*, https://insideclimatenews.org/news/12102023/inside-clean-energy-reality-check-solar-panel-waste/

Survey: Concerns

What concerns do you have about large scale solar in Osceola County?

Wildlife or other environmental, health, or safety impacts (77%)

Removal from site at the end of the project **(76%)**

Impact to farm production and food sources **(76%)**

Visual changes/how solar project looks (51%)

Energy costs and/or reliability of solar energy(45%)

Survey: Potential Benefits

What are the potential benefits of large-scale solar in Osceola County?

Effective use of less productive farmland or marginal land (55%)

Income to farmers and landowners **(54%)**

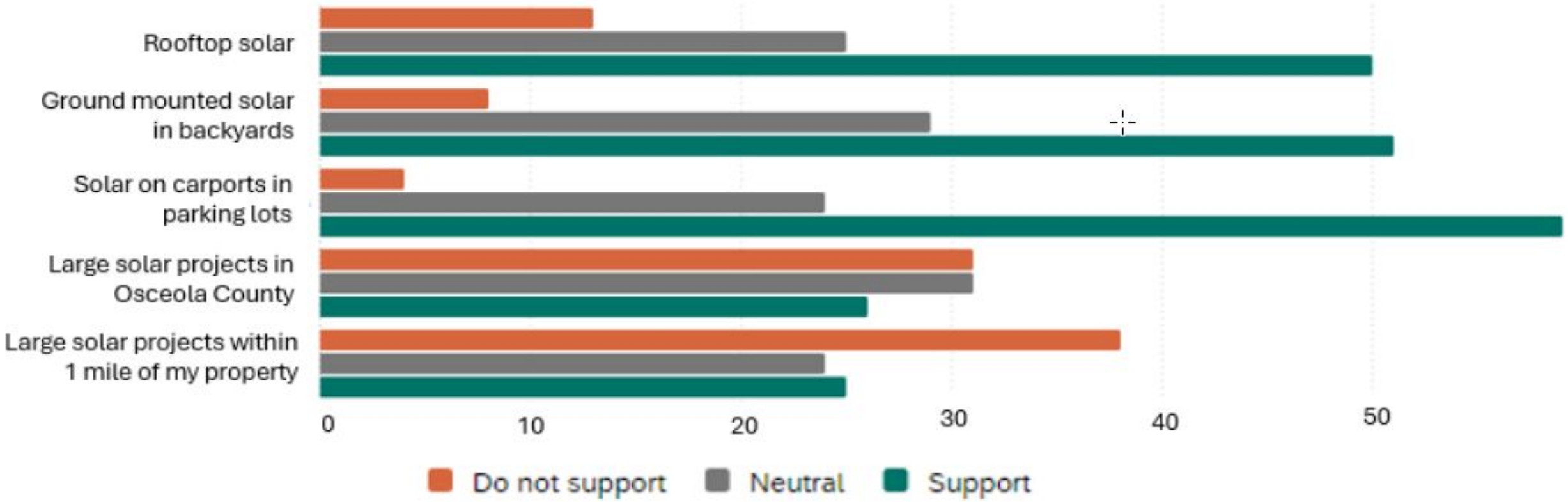
Greater energy independence (41%)

Reduce greenhouse gas/slow climate change (30%)

Increased revenue to local units of government (18%)

Survey: Scale

What is your attitude toward different kinds of solar energy projects in Osceola County?



Survey: land use/land cover

To what extent do you support or oppose large solar energy projects in these areas?

	Generally, OPPOSE	NEUTRAL	Generally, SUPPORT
Active farmland	51	21	13
Federal or state land	28	26	30
Power line or road right-of-way	19	33	32
Open lands not currently being farmed*	18	30	38
Less productive agricultural land	22	23	39
Areas hidden by trees or buffered by distance	16	32	36
Former landfill, sand/gravel quarry, brownfield	3	28	54

EGLE

Town Hall #2: Responsible Siting Priorities (sample)

- Mitigate impacts on habitat, birds, deer movement, migration*
- Decommissioning-financial guarantees*
- Require pollinator plantings or other ground cover such as forage for sheep grazing
- Proper inspection, maintenance, management
- Locate on less productive farmland (including parking lots, brownfields, sand/gravel pits)
- Wooded buffers, setbacks to mitigate visibility
- Reduce noise impacts, setbacks, interverters in center of project*

What does state siting mean for planning or community engagement??

- Identify top community concerns and priorities to inform a workable ordinance
  - Consider energy-generating land uses in the context of preserving agriculture
- Mapping: local suitability for solar/wind (EGLE)
- MPSC process contains some discretionary standards:
  - Revisit soil types/prime farmland/specialty crops (460.12267 (f))
  - If developing on open land… why not on potential feasible alternative locations (vacant industrial sites, brownfields) (460.1225 (n))
  - % of land dedicated to energy projects (existing) (460.1226 (6))

What resources are available?

PA 233 resources:

- PA 233 (HOUSE BILL No. 5120 of 2023)
- MPSC Renewable Energy Siting and Energy Storage Webpage
  - Siting Workshop Recordings
  - Docket page with MPSC Straw Proposal & MPSC Draft Application Instructions
- UM Center for EmPowering Communities' PA 233 Resources Webpage
  - FAQs
  - Sample CREO
  - Guidance on "workable" ordinances
- MTA CREO & Application Fee Escrow documents (Members only)

General resources:

- EGLE's Renewable Energy Academy Webpage
- Renewables Ready Communities Award
- Community Energy Management

- Michigan Zoning Database
- UM + MSU-E Solar Guidebook + MSU-E Wind Guidebook
- UM Storage Guidebook (on the way!)

- MISO Queue (projects in development)
- NREL's Geospatial Energy Mapper (transmission lines, substations, etc.)

Upcoming trainings

- Renewable Energy Academy Workshops
  For local officials, planning commissioners, planning staff:
  - **October 8, 2024, Muskegon** – with West Michigan Shoreline Regional Development Commission
  - **October 10, 2024, Adrian** – with Region II Planning Commission
  - **October 28, 2024, Kalamazoo** – with Southcentral Michigan Planning Council

  For planners in private practice (focus on workability; with MAP):
  - *Dates & locations coming soon!*

- Citizen Planner Program
  - **October 2, 2024 – Marquette County**
  - **October 3, 2024 – Manistee County; Saginaw County**
  - **November 7, 2024 – online**

- Zoning Administrator Certificate
  - **January 30, 2025 – February 21, 2025 – Mount Pleasant**

Questions?

- **Reach out to us**
  - Answer questions
  - Review draft zoning ordinances
    - Talk through pros/cons of alternatives
  - Connect you to other communities

- **More training**
  - Renewable Energy Academy
  - Online webinars on zoning

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