

# Solar Energy Regulation: Does your Township Need a Solar Ordinance?

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# Agenda

1. Outline reasons why Townships should enact and/or amend a solar ordinance.
2. Briefly cover the basics of solar energy systems.
3. Look at strategies and technical standards to include in solar ordinances.
4. Provide time to answer questions.

*Disclaimer: This presentation provides general information and is not intended as legal advice related to a particular set of circumstances or proposed solar development. Please contact an attorney if you need assistance tailored to your specific legal issues.*

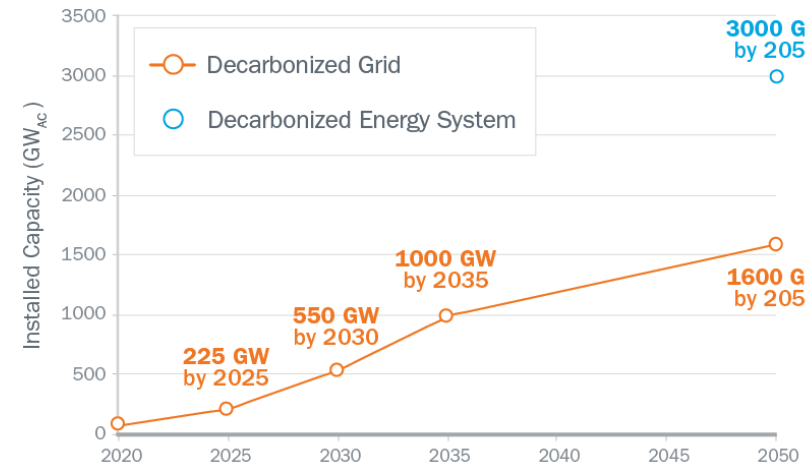


# Why do we need a solar ordinance?

1. **Governmental involvement in pushing renewable energy including solar.**
  - Michigan law requires all retail electric providers to make renewables 15% of their energy portfolio as of 2021 endeavor for 35% from renewable sources by 2025. PA 342
  - Governor's Executive Order (2020-10) requires Michigan to be carbon neutral by 2050.
2. **Utility Companies are ramping up solar as percentage of portfolio.**
  - DTE pledges to have 11 million solar panels in Michigan by 2040.
  - Consumers has pledged to close all coal-fired plants by 2025 and become carbon neutral by 2040.
3. **Economic Incentives are driving many landowners to seek out solar development.**
  - PA 116
  - State Clean energy tax credits
  - Federal tax credits and incentives
  - Financial benefits for property owners (leases).
3. **Rural areas in particular will be in demand.**
  - Footprint of solar production is larger than coal or natural gas
  - 1 Megawatt of solar generated electricity (enough to power 190 homes) requires 5-8 acres of land
  - Average utility-scale solar project in Michigan is 150 Megawatts which requires between 800 and 1,500 acres.



Solar Deployment 2020-2050



Source – U.S. Department of Energy

## Plan Ahead – A Case Study



- White River Township enacted a solar ordinance in 2019 in collaboration with a utility-scale solar developer.
- There was minimal community engagement or pre-planning regarding suitability for large projects in the Township or what size and scope limitations should exist.
- In 2022, the developer submitted a SLU application for a proposed project that would comprise 1,700 acres and take up roughly 42% of all the agricultural land in the Township.
- Prompt backlash from residents led to a moratorium, a federal lawsuit filed by the developer, and a rush to amend the solar ordinance.

# What is a Solar Energy System?

- “Solar Energy System (SES): A system consisting of a device or combination of devices, structures or parts thereof, that collect, transfer or transform solar radiant energy into thermal, chemical or electrical energy. An SES may be mounted on a roof (roof-mounted SES) or be supported by posts or other support structures extending into the ground (ground-mounted SES).”
  - Greater Thompsonville Area Zoning Ordinance (Benzie Co.), Section 18.23





# Types of Solar Energy Systems

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

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

# Ordinance Standards for Accessory – Building Mounted SES

- Often permitted by right in all or most districts
- Can require a zoning permit from zoning administrator.
- Building-Integrated SES are subject only to zoning regulations applicable to the structure or building and not subject to accessory ground or roof-mounted SES permits
- Require applicants to include renderings/drawings.
- Visibility – can require they only be on side of roof not facing the right-of-way.
- Height – No higher than the peak of the building.
- Shall not extend beyond eaves of the roof.
- Generally not an expansion of nonconforming use



## Ordinance Standards for Accessory Ground Mounted SES

- Generally permitted by right in some districts
- Applications should include renderings and describe location of installation.
- Square footage and lot coverage maximums – For example, not more than 1,000 sq. ft. or not more than 50% of primary building area.
- Visibility – require they be located in side or rear yards.
- Reasonably screened from the view of the surrounding streets and roads to the maximum extent practicable by garden walls, fences, hedges, landscaping, earth berms, or other means.
- Height – Range from 4-15 feet measured from ground to top of panel at maximum tilt.
- Exceptions for panels powering individual devices.





# Preliminary considerations for principal use SES regulation

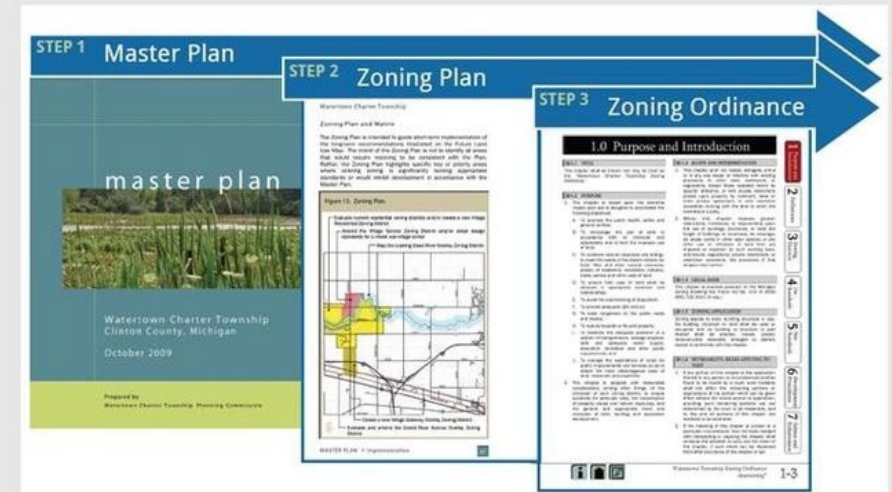
- Decide whether to differentiate by size – small vs large.
- Decide where these can be located – Industrial areas may work for small principal use SES systems but larger ones require much more space.
- Decide whether a Small Principal Use SES application is reviewed solely by the zoning administrator, reviewed and approved by the planning commission, or a hybrid.
- Consider cap on total acreage of Township given over to solar.
- Consider cap on size of a large SES system (including all participating parcels).



# Consider your Master Plan.

Michigan law provides zoning ordinances “shall be based on a plan ...” MCL 125.3203(1). In order for a zoning ordinance to be based on a plan, the plan should be written first. The zoning ordinance will come next and will implement parts of the master plan.

Before creating a solar ordinance, check to make sure your Master Plan includes a vision, goals, and objectives that are compatible with varying scales of solar energy. The Future Land Use Map should be clear about preserving certain areas of farm land etc. if that is a goal. The Master Plan should also contain a statement of preferred scope and scale for solar energy systems.



Source: Figure by the Land Policy Institute, Michigan State University, 2015. Left and middle images: Watertown Charter Township Planning Commission. (2009). **Master Plan**. Watertown Charter Township, MI. Available at: [www.watertowntownship.com/Portals/0/Master%20Plan%20%28Updated%20October%202009%29.pdf](http://www.watertowntownship.com/Portals/0/Master%20Plan%20%28Updated%20October%202009%29.pdf); accessed April 27, 2015. Right image: Clearzoning. (2015). **Watertown Township Zoning Ordinance**. Watertown Charter Township, MI. Available at: [www.watertowntownship.com/Portals/0/LegalNotices-Ordinances/2015/Zoning%20Ordinance.pdf](http://www.watertowntownship.com/Portals/0/LegalNotices-Ordinances/2015/Zoning%20Ordinance.pdf); accessed April 27, 2015.

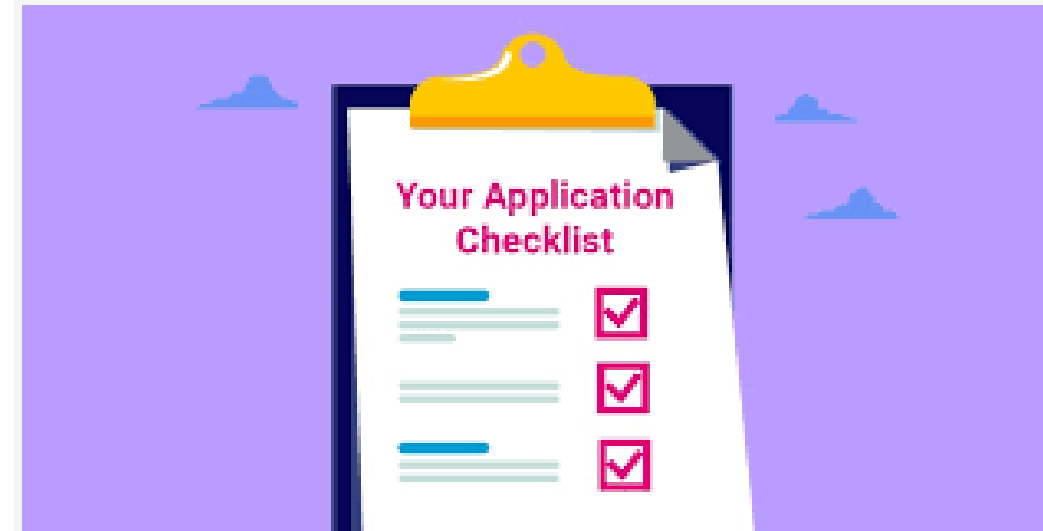
# Standards for Principal-Use SES

- **Setbacks** – taking into consideration other participating parcels
- **Height** – maximum in district or lesser height?
- **Fencing** – In compliance with National Electrical Code
- **Screening/Landscaping** – same standards as district or small uses but enhanced screening for large utility-scale SES.
- **Groundcover/Dual Use** – Can require dual use and PA 116 already does.
- **Noise** – measured from lot line with nearest nonparticipating land owner
- **Land Clearing**– minimum necessary
- **Repowering** – Maintain system and improve it as technology changes.
- **Design** – vis a vis drainage and impact on neighboring non-participating properties.
- **Wiring**
- **Decommissioning** – comprehensive plan should be provided.



# Application Considerations

- Engage technical experts – Township Engineer, Architect etc.
- Require proof of land ownership.
- Initial Studies and continuing studies – environmental impact, glare, noise etc.
- Permits from other Agencies (drain commissioner, Road Commission, FAA, EGLE, etc.)
- Use of Fees/Escrows to pay for review and enforcement.





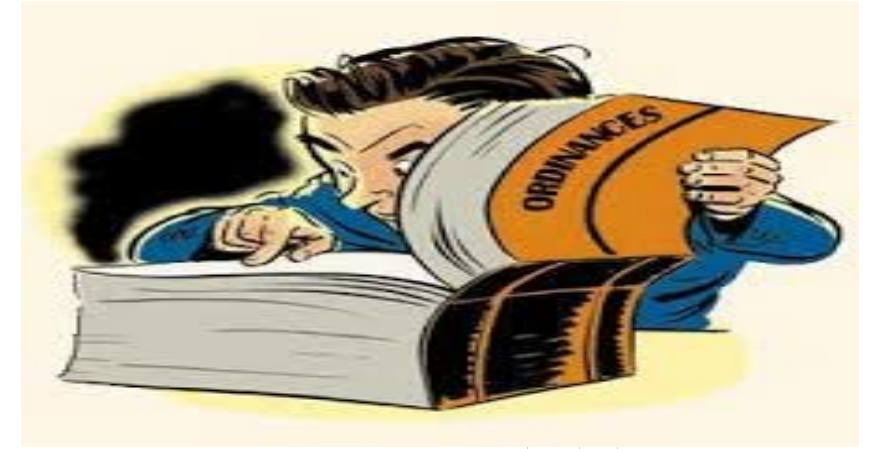
# Police Power vs Zoning Amendment

## Regulating Solar Energy through a Police Power Ordinance:

- Authority is MCL 41.181 or MCL 42.15
- Suitable for Township's that do not have zoning or perhaps have county zoning
- Regulations focus on "activities" to protect the public health, safety and welfare.
- Permitting Scheme applicable to whole Township
- Cannot regulate location of solar energy systems.

## Regulating Solar Energy through a Zoning Amendment:

- Authority is the Michigan Zoning Enabling Act (MCL 125.3101 *et. seq.*)
- Can regulate areas in the Township that are suitable (or not) for SES.
- Can make certain types of SES permitted by right while others could be subject to site plan review and/or special land uses.
- Beware of exclusionary Zoning – zoning provisions must have a reasonable basis



## Resources

1. Your friendly Mika Meyers municipal attorney.
2. Academia – MSU Extension and UofM created a guide for local governments called *Planning and Zoning for Solar Energy Systems*.

<https://www.canr.msu.edu/planning/uploads/files/SES-Sample-Ordinance-final-20211011-single.pdf>

3. Subject matter-experts – engineers

